

PERSONALITY AS A PREDICTOR OF FACEBOOK ENGAGEMENT

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ABSTRACT

Research suggests that personality may dictate specific Internet behaviours or preferences. However, literature to date has been piecemeal and has tended to focus on generic use. One area that remains relatively unexplored is the influence of personality on engagement with social networking sites (SNSs). The current thesis aims to fill this gap by exploring the influence of personality on motivations for using SNSs and behavioural patterns within them. Eysenck's EPQ-R short form (extraversion, neuroticism and psychoticism) and Beck's SAS (sociotropy and autonomy) were used to explore personality, both globally and specifically.

Phase one of the thesis employs a 'uses and gratifications' framework to investigate how personality may predict motivations for using SNSs. Principal component analysis identified ten distinct motivational components, which were then successfully predicted by personality variables through regression analyses. It is therefore suggested that differing personality types vary greatly in their reasoning behind SNS usage. Results support theoretical assumptions.

Phase two of the research looked at Facebook behaviours and profile construction. A content analysis of participant profiles was conducted with the help of questionnaire methodology. Data analysis suggests that personality was not a particularly strong predictor of self-presentational differences in this context; although subtle differences were present.

The final phase of the research explored the perceived Facebook experience of users. A thematic analysis of an online student discussion board was conducted in order to generate distinct themes surrounding Facebook outcomes. These were used within Q Methodology to generate a concourse, through which Q sort

statements were derived. Results generated four shared viewpoints of the Facebook experience, which were subsequently associated with personality through the use of traditional R methods. Again, although not particularly strong, theoretically supported associations can be seen.

The thesis explores personality within SNS use in a depth previously unexplored. The conclusion makes theoretically-sound assumptions surrounding personality and SNS use as a media choice.

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CHAPTER ONE: INTRODUCTION TO THESIS

1.1 INTRODUCTION

Personality can be broadly defined as “a dynamic and organized set of characteristics possessed by a person that uniquely influences his or her cognitions, motivations, and behaviours in various situations” (Ryckman, 2000, pg 5). As such, personality is known to affect behaviour within everyday social situations. Individuals are predisposed to certain preferences of communication. As the introduction of Social Networking Sites (SNSs) becomes stabilised as part of everyday life, it is important to explore how offline personality translates into this new, virtual social environment.

The current area of research is fast-paced and growing immensely. However, despite literature suggesting its importance, research so far has only briefly covered associations between personality and SNS use. Indeed, no previous research has systematically explored personality and SNSs in a comprehensive manner; particularly with consideration to the current personality variables explored within this thesis. The research will explore why certain personality types are drawn to SNSs, how they are using the SNSs differently, and finally the outcomes of such use under a well-being framework.

1.2 RATIONALE FOR THE THESIS

Social Networking Sites are bridging the gap between online and offline socialisation. Aside from their high popularity, SNSs are of particular interest to Internet researchers due to their unique setup. Although the SNSs allows users to

create an online visual social network, this largely represents one's offline relationships (Zhao, Grasmuck & Martin, 2008); thus SNSs allow insight into overlaps between one's online and offline social interactions.

Past literature has found individual differences within Internet application use, with those of differing personality types showing online preferences in-line with their underlying predisposition. For instance, it has been suggested that extroverts dislike the use of chat rooms for socialising (Amiel and Sargent, 2004), yet they may show a preference for SNSs (Amichai-Hamburger, Kaplan & Dorpatcheon 2008) due to their offline saliency. Furthermore, high neuroticism scorers are thought to value online communal activities more so than lower scorers; whereas high psychoticism scorers show a lack of interest in communication activities in general (Amiel and Sargent, 2004). However, such literature has only explored general application use as opposed to the intricacies of use within applications. So far, the literature has relied on correlations between personality, demographics, and time spent on Internet applications, whereas an integrative approach will allow for a more explanatory analysis.

In addition to adding to the personality and Internet literature available, the research will help improve understanding of the benefits and drawbacks of Facebook use in light of individual differences, which is of interest to academics and popular psychology alike. Such ideas are extremely novel, and are therefore of methodological interest in terms of establishing norms for future research.

1.3 RESEARCH AIMS AND OBJECTIVES

The current thesis is split over three phases of research. Each phase represents a specific aim and research question. These questions are broken down further

within each individual chapter. Underlying these aims, a more exploratory line of questioning will also be undertaken. The first phase of research focuses on *why* different personality types are drawn towards SNSs. The research is inspired by uses and gratifications methodology (e.g. Katz, Blumler, & Gurevitch, 1974) - a communications theory that has been used to explain audience motivations behind traditional media choice. More recent literature has attempted to use this approach to explore motivations behind Internet usage, but research has largely ignored differences between personality types. This is despite acknowledgement of its importance by key researchers such as Katz et al., (1974). Such research will allow a better understanding of the expectations that differing types of users hold surrounding their use of SNSs. This phase also assesses general online communication behaviours with the inclusion of an online self-disclosure scale and an online behaviours scale, which looks at levels of lurking, 'faking behaviours', and the difference between one's perceived online and offline identity. Such behaviours allow insights into comparable offline situations, as well as an exploration of online-specific phenomenon. This exploratory analysis allows an understanding of underlying behaviours, which may impact upon such motivations.

The second research phase focuses on *how* different personality types interact with SNSs; with a specific focus on Facebook. The research explores profile construction and self-presentation, and looks at subtle differences in the way different personality types present themselves within the structure of Facebook. Computer-mediated communication promotes several changes compared to offline behaviour. For instance, users can afford higher levels of control within their self-presentation, allowing for the creation of an optimised identity. Information can be

revised and edited over time. Within SNSs this extends from one's profile creation to their direct communication with others. Very little research to date has explored the role that personality may play in driving such behaviours. This section expands on the motivations of the previous phase, and allows an exploration of how personality directly translates to online behaviour. The transferability of offline social processes are directly explored in order to question whether differing personality types behave as expected from their offline social profile.

The final phase of research explores the outcomes of Facebook; specifically how users perceive Facebook and the experience it offers them. Combined with the previous chapters, this phase looks at the consequences of using Facebook in a certain way. The first step involves a thematic analysis of forum posts in order to establish general views on Facebook across a student population. Q methodology is then used to establish viewpoints by grouping these views into types of experiences. The final experimental chapter uses these viewpoints to establish whether any personality types are at risk of the more negative experiences.

To summarise, the research aims to explore how personality interacts with: 1) motivations behind use (*why* different personality types are drawn to SNSs); 2) actual usage (*how* different personality types use Facebook in terms of self-presentation and SNS features); and finally 3) outcomes of usage (*what* consequences arise for different personality types from using Facebook).

1.4 CHAPTER STRUCTURE

The current thesis is separated into eight chapters. To clarify the structure of the thesis, a brief summary of chapters is included below.

Chapters 1, 2 and 3 set the scene of the thesis. Chapter 2 introduces the thesis and provides a background introduction to SNSs and current SNS research. Chapter 3 provides an in-depth description of personality within the current context, and provides a review of previous literature linking personality to the online environment.

Chapter 4 details the first phase of research. It considers motivations behind SNS usage to determine why different personality types may be drawn towards SNSs. Furthermore, the chapter offers an exploratory look at personality differences within generalised online behaviours.

Chapter 5 offers the second research phase, exploring intricacies in profile management and SNS usage. Due to the findings within chapter 4, Facebook is explored in an exclusive manner. The chapter focuses on self-presentation, questioning how different personality types are interacting with available features.

Chapters 6, 7 and 8 offer the final phase of research, exploring Facebook in terms of well-being. Chapter 6 provides a thematic analysis to help distinguish potential outcomes as a consequence of Facebook experience. Chapter 7 details a Q sort study, which arranges these consequences into specific viewpoints. Such viewpoints are described in a narrative manner, allowing a breakdown of potential Facebook experiences. Chapter 8 concludes the experimental chapters with a questionnaire exploring personality as a potential predictor of these viewpoints. The implications of such results in regards to well-being are discussed.

Chapter 9 concludes the thesis by summarising results into personality typologies in an effort to establish norms for future research. Furthermore, the chapter discusses implications of the thesis and subsequent areas of potential research.

CHAPTER TWO: LITERATURE REVIEW – SOCIAL NETWORKING SITES AND A USER PERSPECTIVE

2.1 THE INFLUENCE OF THE INTERNET

The Internet has revolutionised today's society, with over two billion users across the globe (Internet World Stats, 2011). According to the UK National Statistics Office (2011), just under 41 million members of the UK adult population (82.2% of those above 16 years of age) have used the Internet. Armstrong, Phillips and Saling (2000) attributed its growth to improved accessibility and the increasing variety of services available, and such assumptions still appear to hold true. Over the last decade massive investment has been made within mobile and wireless technologies, ensuring that online services can now be accessed with minimal geographical and cost limitations. Furthermore, the Internet itself has evolved from a singular concept to a virtual world, with the implementation of Web 2.0 technology. The Internet can no longer be seen as a uniform application (Wolfradt & Doll, 2001). The increasing number of webpages and applications added to the Internet has led to a rise in the number of available activities being taken up by Internet users. Attempts to categorise the Internet has seen distinctions between social, leisure and informational services (Hamburger & Ben-Artzi, 2000), or similar alternatives (Hills & Argyle, 2003; Landers & Lounsbury, 2006; Swickert, Hittner, Harris & Herring, 2002). However, although widely used, such

classifications are not without flaws. Foremost, categories are not mutually exclusive. Single web applications often fulfil social, leisure and informational gratifications. Simplistic categorisation can misrepresent the applications at hand. Thus research no longer focuses on the Internet as a whole, but rather on specific types of web applications and usage offered by such sites.

2.2 Introduction to SNSs

The introduction of SNSs reinvented previous computer-mediated communication (CMC) options. SNSs can be characterised by three distinctive features (boyd & Ellison, 2007). First, they allow individuals to create a profile within a web-based system to define their visual presence. Second, members can then use this system to add connections to other members, creating a visual list of associations. Finally, users are able to navigate through such associations to access a wider network. Offering a full range of applications, SNSs now incorporate aspects of the social, leisure and informational services that Hamburger and Ben-Artzi (2000) once used to define the Internet. They are reinventing the concept of social communication (Ross et al., 2009) and questioning previous social norms and conceptions (Hargittai & Hsieh, 2010).

Such sites offer a choice of synchronous or asynchronous communication through the incorporation of a 'wall' (akin to a personal discussion board), chat room (instant messaging), and private messaging facilities (similar to internal email). Each communication type has its own benefits and limitations, which could be sought depending on user needs. For instance, asynchronous communication allows users time to think about their response, whilst synchronous communication promotes an interaction similar to face-to-face communication.

Furthermore, through these features users are offered the ability of one-to-one or one-to-group interaction. Rau, Gao and Dind (2008) argue that SNSs are distinguishable from previous online communities in a number of ways. First, despite the ability to form new relationships or further online relationships, SNSs are based largely on one's existing 'real world' social network structure; whilst previous forms of CMC communities tend to revolve around communication with strangers. Second, the SNS network mimics an offline network structure, through connected individual nodes rather than groups as seen previously. Finally, SNSs focus on member profiles allowing for visual person-to-person exploration; whereas previous CMC options tend to focus on a given topic foremost, with individuals interacting based on that topic.

The uniqueness of features offered by such sites promotes the opportunity for users to create their own self-presentation strategies, and choose a communication style to suit their needs. Thus SNSs allow users flexibility in socialisation that has not previously been possible. For instance Donath and boyd (2004) argue that individuals are able to maintain more close ties due to synchronised updates across one's network.

The past decade has seen the popularity of SNSs escalate into one of the most talked about CMC applications of current times (Buffardi & Campbell, 2008). In a recent large-scale survey of University students within the US, 85.2% reported using at least one SNS, with users reporting an approximate average usage of 7.3 hours per week (Salaway, Caruso & Mark, 2008). However, popularity of SNSs should be considered a fluid state (Chen, 2011). The medium develops at a fast pace and user reactions may change over a very brief time. As such, the importance of constant exploration and replicated research over time is emphasised.

2.2.1 RESEARCH ON SNS USERS

Boyd and Ellison (2007) have categorised SNS research to date under four key topical categories: impression management and friendship research, network structure research, on- and offline comparisons, and privacy research.

Furthermore, they reported that culture differences, gender, Internet access levels, living arrangements, time online and Internet skills level may all affect type of SNS usage. However, despite this diversity in research potential, it is perhaps surprising that specific SNS engagement in terms of a user perspective has rarely been explored (Hargittai & Hsieh, 2010).

In an attempt to build a typology of potential SNS users, Hargittai and Hsieh (2010) identified four subtypes of users depending on frequency of SNS use and number of SNSs used. Those who used just one SNS were labelled as 'dabblers' (low frequency; 9.2% of participants) or 'devotees' (high frequency; 28.8% of participants), whilst those who used multiple SNSs were referred to as 'samplers' (low frequency; 4.5% of participants) or 'omnivores' (high frequency; 45.27%).

Alarcón-del-Amo, Lorenzo-Romero and Gómez-Borja, (2011) develop this typology further by classifying users based on frequency and diversity of feature use within SNSs. Again four subtypes were established. The 'introvert' who is an occasional and passive user; the 'novel' user, who is also an occasional user but more active with communicative features; the 'versatile' user, who makes use of the varied features but only occasionally; and finally the 'expert-communicator' who uses a variety of features frequently.

2.2.2 SPECIFIC FACEBOOK RESEARCH

The UK's most popular SNSs, Facebook and MySpace, appeal to a different criteria of users (boyd, 2007). Due to feature differences between SNSs and as research

questions become more defined, more recent research has focused specifically on individual websites. Currently in the UK, Facebook is the most subscribed to SNS, with approximately 28 million registered users (Benavent, 2010), having overtaken MySpace in 2007 (*NetRatings*, 2007). As such, the majority of recent research is based on Facebook.

Founded in 2004, Facebook holds over 750 million active users worldwide (*Facebook*, 2011). Compared to other SNSs and CMC applications in general, Facebook is more heavily associated with the user's offline world (Ross et al., 2009). The set up of Facebook emphasises this with its "search criteria" display, which searches based on personal information (such as name or e-mail) over generalised information (such as people within a certain age bracket). Over the past year Facebook has developed further than any previous SNS by partnering with external sites with the use of 'social plug-ins' (*Facebook*, 2011), allowing users to share their Internet activity with others. Thus, one's Facebook profile has evolved into a hub of individual Internet and offline activity.

Following boyd & Ellison's (2007) standard definition of a SNS, Facebook gives each user an individual profile, from which they can add 'Friends' and content. Friends in this instance is capitalised with intent. Boyd and Ellison (2007) make the distinction between on- and offline friendship as those in a user's Facebook network are often general acquaintances. Indeed, the average Friend network size per user is reported to be 130 (*Facebook*, 2011), yet statistics vary widely and it is not uncommon to have hundreds more (e.g. Watkins and Lee (2010) report an average of 305 Friends, with 1.2% holding over 2001). Furthermore, figures suggest that 15% of Facebook Friends have never met in a face-to-face manner (Stefanone, Lackaff, & Rosen, 2008). Facebook content appears in several forms.

First, users are encouraged to share photos, and 'tag' other users who appear in these photos. Second, users can 'like' content, which will then appear on their 'wall'. This may include internal Facebook 'pages' or external information that the user wishes to 'share'. Content can also be created by the user, in the form of status updates. However, it is important to note that content is not exclusively controlled by the user. Indeed, the profile itself is limited to physical Facebook constraints; whilst members of one's network can usually add information to the user's wall without permission (depending on privacy settings) (Tong, Van Der Heide, Langwell & Walther, 2008). A user's profile is thought to be core to their online self-identity; allowing users to construct their online presence (boyd, 2007) through self-presentation and interaction (Buffardi & Campbell, 2008).

In terms of social interaction, Facebook allows both synchronous and asynchronous communication through a variety of features. Namely, users can interact through direct wall messaging (public), private messaging, or through the chat room. Furthermore, they can interact with others outside of their direct network through groups or pages. Such interaction has the ability to be either active or passive.

2.3 USES AND GRATIFICATIONS

The current thesis takes a user perspective to explore how user differences affect SNS usage. It would be remiss to explore such ideas without taking inspiration from the 'uses and gratifications' approach. The uses and gratifications approach consists of a collaboration of theories and frameworks used to explain media choice. The approach has early origins, gaining popularity within the 1970s, where the aim was to explore individuals' motivations when actively choosing particular

media options or features within media (Katz, Blumler & Gurevitch, 1974). The key feature of the approach emphasises that media users are goal-directed in their usage, seeking out specific gratifications to fulfil their individual needs, as opposed to passively accepting its existence. These needs derive from psychological and sociological factors that are personal to the individual, and therefore media choice is dependent on gratification fulfilment and satisfying these needs (Rubin, 2002). From its earliest concept, the approach has moved to a stronger focus on motivations behind media usage, and has become more specific in its attempts to clarify theoretical concepts with increased gratification terminology (Lee, 2004). It is flexible in its applicability, and can be used to look at functions of use, motivations that may affect use, or categorical lists of motivations (Rubin, Perse & Barbato, 1988). The uses and gratifications approach does not have a set methodology or a predefined set of rules (Charney & Greenberg, 2002). It is up to the individual study to draw upon relevant motivations. However, results do seem to replicate previous ideas, with many studies drawing on past literature as a starting point.

2.3.1 USES AND GRATIFICATIONS AND INTERNET USE

The uses and gratifications approach appeared to have run its course, reaching its peak with the downfall of television research (Lee, 2004). However with the revolution and growth of the Internet as a new media choice, the approach has seen renewed interest and been sparked back in to life (Johnson & Kaye, 2003). Uses and gratifications has been described as a recyclable approach (Dixon, 1996), as newer research can successfully draw upon previous motivational studies to form a more comprehensive motivations list, regardless of media type. Indeed, there is high stability of motivations across media types (Parker & Plank, 2000).

There are several studies exploring the uses and gratifications derived from Internet use and related concepts. Papacharissi & Rubin (2000) for example explored students' general Internet use. Through factor analysis five motivations were identified, which were interpersonal utility, passing time, information seeking, convenience and entertainment. Furthermore, Parker and Plank (2000) found three factors from their student sample, which were companionship and social relationships, surveillance and excitement, and relaxation and escapism. Ko (2000) identified four motivational factors behind Internet use, which were social escapism, passing time, interactive control, and information. In a comparison of surfing the Web with television use, Ferguson and Perse (2000) highlighted the importance of entertainment, passing time, relaxation/escapism, and social information motives. Ebersole (2000) identified eight factors relating to use of the World Wide Web, which were research and learning, entertainment, social, boredom, access to exclusive services, information and tech support, games, and shopping. Lin (1999) found that escapism and companionship, surveillance and entertainment motivated online access. In addition, through collating previous research, Lin (2002) successfully distinguished between three motivational factors behind online media service use. These were escapism and interaction, information learning and entertainment. Finally, Johnson and Kaye (2003) conducted an online survey to explore how politically interested Web users engaged with online activities. Motivations of guidance, entertainment/social utility, convenience and information seeking were found.

More recently, LaRose and Eastin (2004) have disagreed with the application of uses and gratifications in its original form to explain Internet engagement. As such, they argue that the approach should be modified so that expected outcomes of

Internet use replace the ambiguity of the gratifications label. The modification draws upon Social Cognitive Theory (Bandura, 1986), whereby expected outcomes can help predict performance of a particular action. Expected outcomes are formulated from expected incentives, and previous experiences. Following Bandura's (1986) theory positive expectations should therefore encourage use, whilst negative expectations should deter use.

Despite the various labels used or theoretical stance taken, key themes emerge from the above studies regarding fundamental motivations driving Internet use. More specifically, interpersonal communication, passing time, information seeking, and entertainment appear to dominate across studies. However, although of great interest, it is not theoretically justified to view the Internet in a uniform manner. Just as individual TV channels and programmes offer to fulfil different gratifications, different Internet applications may also satisfy differing needs (Johnson & Kaye, 2003). Indeed, Eighmey and McCord (1998) found that differing websites emphasised diverse motivational factors behind use, highlighting the importance of context differences. As such, many context-specific studies have been conducted.

More specifically CMC has received much attention. Stafford, Kline and Dimmick (1999) used uses and gratifications theory within qualitative methodology to explore home email usage. Through thematic analysis, four over-arching motivational needs were identified. These were interpersonal relationships, personal gain, business, and gratification opportunities. Papacharissi (2002) found that information, entertainment, self-expression, communication, professional advancement, and passing time were potential motivations for running a personal web site. Specifically targeting an online community for those over the age of 55

(SeniorNet), Dixon (1996) explored CMC motivations. Communication utility was found to be the most important motivation, followed by diversion and passing time/habit. Finally, James, Wotring and Forrest (1995) looked at Bulletin Board Systems (BBSs), and found motivations of information and socialisation to be of most importance, followed by communicative medium appeal, business and entertainment.

The need for recurrent research, in new environments is emphasised. In an earlier study of BBSs Rafaeli (1986) found the motivations of diversity, entertainment and recreation of more importance, with information seeking and surveillance as secondary motivations, which seems to compete with the findings of James et al. (1995). This difference may be explained by the large time gap between studies, especially as the Internet was still in its infancy during Rafaeli's study. By 1995 alternative web services were available which may better fulfill users' entertainment and recreational needs. Thus the use of BBSs may have become more specialised in terms of informational and social requirements. According to Ramirez Jr, Dimmick, Feaster and Lin's (2008) Niche Theory, newer media compete with older media to gratify user needs. Thus users may switch to a more suitable medium if it satisfies their needs more so than the previous environment. It is therefore emphasised that despite similarities in previous research, it is of the utmost importance to study uses and gratifications of a new media. Such results are not only important for understanding user motivations, but may also provide an indication of how the introduction of such an environment impacts on previous environments available.

2.3.2 CRITICISMS OF THE APPROACH

Although the uses and gratifications perspective is extremely useful in its ability to predict or determine media use from motivations, the approach has its criticisms and limitations. For instance, the comparability between CMC and traditional media needs to be considered (Dimmick, Kline & Stafford, 2000). The theoretical question underpinning this relates to the understanding of SNSs as active social environments, as opposed to static social media (Urista, Dong & Day, 2009). One could maintain that the level of interactivity found on the Internet should not be considered a form of media but rather an alternate reality or community setting. However, Johnson and Kaye (2003) argue that the Internet is particularly well-suited to the theory due to this interactivity, which makes it easier to examine any influence between gratifications and any affects on behaviours. Furthermore, SNSs hold many of the same features as the Internet in its entirety (Nyland, Marvez & Beck, 2007), and there have been many studies of the Internet that pertain to implementing uses and gratifications successfully (see above). Moreover, uses and gratifications theory has been used outside of media contexts. For instance, Rubin, Perse and Barbato (1988) used the approach as a basis to explore motivations of interpersonal communication. It is argued that the Internet should be able to fulfil a vast array of motivational needs due to its large diversity of applications (Newhagen & Rafaeli, 1996).

Concerns surrounding the sufficient accuracy of self-report methods have been noted (Katz, 1987). In addition to this, the approach was initially criticised for rarely reporting validity and reliability analyses (Becker, 1980). However, within the current thesis uses and gratifications will be explored directly and indirectly through a mixed methods approach. Furthermore, reliability itself is demonstrated through large consistency between study results, with many studies echoing

similar gratifications (Lin, 1999). Finally, the approach has been criticised for holding poor definitions of key terminology used throughout the framework (Lee, 2004). However, this may be more pertinent in theoretical studies that draw on niche or theoretical aspects of uses and gratifications. Regardless of the above criticisms, Ruggiero (2000) argues that the approach is fundamental to the exploration and understanding of CMC and new media.

2.3.3 USES AND GRATIFICATIONS AND INDIVIDUAL DIFFERENCES

Personality theory suggests that we are predisposed to a certain disposition, with a tendency to react to situations in a consistent manner. Thus, differing personality types seek out or show preference towards differing types of stimulation. It is therefore logical to assume that motivational needs and gratifications sought may be affected by personality and individual differences; i.e. our underlying personality determines the needs we seek, which then determines how we use media. Rosengren (1974) argues the importance of psychological and social characteristics within uses and gratifications research. Furthermore, Palmgreen (1984) argues that psychological variables, laid out as important by Katz, Blumler and Gurevitch (1974), are often missed from literature exploring the theory, despite Blumler & Katz's (1974) suggestion that the inclusion of such variables can be incorporated with ease. Indeed, Donohew, Palmgreen and Rayburn II (1987) argue that consideration of external social and psychological factors that may account for individual variance in use is fundamental to understanding the uses and gratifications approach; whilst Hertel, Schroer, Batinic and Naumann (2008) argue that more research needs to be undertaken to explore the link between personality and media preferences for communication. Although piecemeal, there are a number of studies that have already explored the effect of personality on uses

and gratifications in communications or online research. For instance, Rubin, Perse and Barbato (1988) found that the personality trait ‘communication apprehension’ was associated with several motivations behind communication; whilst Butt and Phillips (2008) reported that personality mediates mobile phone communication. Furthermore, research suggests that individual differences such as age are found to alter motivations of media use (Johnson & Kaye, 2003). However, demographic results are not always significant (e.g. Dixon, 1996). It is worth noting that many of the studies within the literature review exploring personality and Internet use (chapter 3) use a uses and gratifications framework (e.g. Amiel & Sargent, 2004).

2.4 CONCLUSION

The diversity offered by social networking sites promotes the currently unmet need to profile users who differ in their usage (Alarcón-del-Amo et al., 2011). Past literature supports the notion that individual differences, and personality in particular, may impact upon media choice; yet so far only limited research has actively explored this association within an SNS environment. Thus, this thesis aims to investigate heterogeneity of all aspects of SNS use by exploring personality as a potential determinant of diversity. Uses and gratifications will be used to guide research into motivations behind use. CMC theories and past literature will be used to explore profile construction and feature uptake. Finally, well-being literature, such as social capital theory, will aid exploration into potential outcomes of SNS use for differing users. The literature review above highlights key aspects of interest, which have been explored generally, but not under the guidance of individual differences. The following chapter provides a summary of current personality literature.

CHAPTER THREE: LITERATURE REVIEW – INTRODUCTION TO PERSONALITY

3.1 INTRODUCTION

The current thesis chooses to explore both global and specific factors of personality as a predictor of engagement with SNSs and in later chapters specifically Facebook use. As the research is novel in its area of investigation, exploring personality in a global manner will provide an overview of the potential influence that individual emotional, behavioural and attitudinal response patterns have on SNS use. Therefore Eysenck's three-factor model will be adopted for use. However, Amichai-Hamburger (2002) argues that specific personality traits rather than hierarchical factors may be more fruitful in identifying intricate links. As such two additional personality modes will also be explored (sociotropy and autonomy).

3.2 EYSENCK'S THREE FACTOR MODEL

3.2.1 JUSTIFICATION OF CHOICE

Despite great debate spanning over several decades, consensus has not yet been drawn on a common personality theory and approach. There are many personality tests each measuring various aspects of personality. Generally, trait theories of psychology are cited as the dominant approach within personality research (Matthews, Dreary & Whiteman, 2009). Trait theories suppose that personality as a whole can be reduced to a number of stable factors. These factors encompass a

high number of individual traits to form a descriptive overview of an individual's character.

There are two dominant models in the field. The five-factor model (Costa & McCrae, 1992) consists of five dimensions (extroversion, neuroticism, agreeableness, conscientiousness and openness to experience), whilst Eysenck's model, focuses on three dimensions (extraversion, neuroticism and psychoticism). Both theories map onto each other. Extraversion and neuroticism are widely accepted and hold the highest evidential success rate, with common agreement for their existence across research (Matthews et al., 2009). Psychoticism negatively correlates with the dimensions of agreeableness and conscientiousness (c.f. John & Srivastava, 1999). Thus, Eysenck argues that these are not factors, but rather traits which should be encompassed by the 'superfactor' of psychoticism (Eysenck, 1994). Despite advocates of both approaches, it is argued that both theories rely on a large amount of shared variance suggesting that neither is of higher importance (Aluja, Garcia & Garcia, 2004; Scholte & De Bruyn, 2004).

After careful consideration, Eysenck's three-factor theory was chosen as the dominant approach throughout this thesis. There are three main reasons for this decision. First, Eysenck (1993) argues validity in terms of relationships to social behaviour. Briefly, extraversion is associated with level of sociability; neuroticism (along with extraversion) has been found to affect social network size and behaviour with close social contacts (Kalish & Robins, 2006), and psychoticism is noted by a strong tendency towards anti-social behaviour. As this thesis centres on CMC, it follows that a stronger focus of social dimensions would be more useful than focusing on broader dimensions, such as openness. The three-factor model has wide support including research into factorial stability, biological support

(such as arousal and inhibition studies), and predictability of behaviour (e.g. aggression, sexuality, interests and occupation, and criminal behaviour) (refer to Eysenck & Eysenck, (1991) for a review of literature). Eysenck's model has already been identified as being particularly useful when researching personality and mass media preferences, due to the links that have already been established between these factors and traditional media use. For example, using the three-factor model, Weaver (2000) established that personality types differ in their preference of music genre. Due to its success in predicting previous mass media use, it should follow that the model may be able to successfully discriminate types of SNS engagement also. Finally, in terms of practicality, Eysenck's three-factor model can be measured on a 48-item questionnaire, entitled the EPQ-R short form; allowing for easy administration at each phase of the study. Despite the limited number of questions, the scale still offers good reliability and validity (refer to section 2.2.3 below). Furthermore, a three-factor analysis offers a more succinct form of enquiry in terms of statistical possibilities. A personality approach of five dimensions would produce a high number of variables, complicating statistics unnecessarily.

3.2.2 INTRODUCTION TO THE THREE-FACTOR MODEL

Eysenck's model assumes a four-level hierarchy taxonomy of personality. At level one are single occurring behaviours (e.g. a conversation). This is followed by level two, reoccurring behaviours labelled as habits (e.g. conversational habits with a friend). Level three comprises of single traits that determine such habits and behaviours (e.g. sociability). Finally the three superfactors which make up the model lie at level four, and encompass groupings of level three traits (e.g. extraversion) (Eysenck, 1990). Scores on each of the superfactor dimensions lies on a continuum of high to low scorers.

Eysenck's model differs from other models of personality due to the assumption of the existence of a biological basis that drives underlying needs. Personality types are thought to hold psychophysiological differences. Individuals will show preference to activities that allow them to reach their optimal physiological state and their personality traits reflect this need (Matthews & Gilliland, 1999).

3.2.2.1 EXTRAVERSION

Extraversion, and its reverse Introversion, is perhaps one of the most visible personality traits (Albright, Kenny & Malloy, 1988). It is fundamental to personality research despite differences in how the factor is labelled (Guilford, 1975). The typical extravert is described by Eysenck and Eysenck (1991) as being of a sociable character, who searches for excitement. It is associated with care-free, risky behaviour and an optimistic yet easy-going outlook on life. This type of person avoids solitary activities, and instead seeks social interaction. Conversely, the introvert is that of a solitary, reserved character, who is cautious and somewhat pessimistic.

From the biological perspective, extraverts and introverts are said to differ in their level of cortical arousal. Introverts are thought to be over-aroused; whilst extraverts are under-aroused (Eysenck, 1967). Based on the Yerkes-Dodson Law, an optimal level of performance relies on an inverted U shape. Thus introverts and extraverts will hold differing preferences and therefore exhibit differing behaviours in an attempt to reach this optimal level. Extraverts therefore prefer stimulating situations; whilst introverts prefer inhibiting situations. These are sought out by the qualities and preferences held by their disposition.

3.2.2.2 NEUROTICISM

A high neuroticism scorer is described as a worrier, who frequently suffers from anxiety and extreme or perhaps irrational emotional reactions. They may be more susceptible to psychosomatic disorders or depression. The opposite of the dimension (emotional stability) represents someone who has a calm, composed and even-tempered disposition (Eysenck & Eysenck, 1991).

Those with high and low neuroticism scores hold differing activation thresholds within the sympathetic nervous system (Eysenck, 1967). High scorers have a low threshold, and therefore a low stress tolerance. A minor stressor can trigger the sympathetic nervous system into action; increasing their anxiety level. Low neuroticism scorers on the other hand have a higher activation level. Therefore they tend not to react to stressors unless under stronger circumstances.

3.2.2.3 PSYCHOTICISM

A high scorer of psychoticism is thought to be uncaring and anti-social, with a disregard to social conformity and societal norms. This type of person lacks social skills such as empathy and revels in the misfortune of others. They will be a solitary person, who is less likely to react under threats of danger. High scorers of psychoticism may be more vulnerable towards psychotic tendencies or psychiatric abnormalities. The low psychoticism scorer (impulsive control) describes a caring and conformist individual (Eysenck & Eysenck, 1991).

There is less biological support for psychoticism, compared to the previous two factors. Tentative research suggests differing androgen or dopamine levels between high and low scorers (Eysenck, 1967; Eysenck, 1997). Furthermore, Zuckerman (1994) highlighted a tentative link between psychoticism and polymorphism; however this has been unsubstantiated through further research (e.g. Turakulov, Jorm, Jacomb, Tan & Easteal, 2004).

3.2.2.4 PSYCHOBIOLOGICAL PERSPECTIVE

Biological support substantiating Eysenck's psychobiological view has had mixed support. Gale (1973) notes that the testability of such theories is limited due to surrounding confounding variables. Eysenck (1990) also queries the testability of such a theory without optimal conditions. Despite these concerns EEG and ERP measures do suggest congruence with Eysenck's ideas; yet results are stronger for the exploration of extraversion, compared to neuroticism and in particular psychoticism (Matthews & Gilliland, 1999).

Personality research is diverse in its approach, and although Eysenck's approach to personality is being subscribed to, it is not the aim of the research to advocate or fully justify the theoretical input of this model above others. Rather, the theory justifies its suitability by offering a valid and theoretically sound level of enquiry to fit the current research topic.

3.2.3 EPQ-R SHORT FORM

The EPQ-R short form (Eysenck & Eysenck, 2006) was used to measure Eysenck's three superfactors. A fourth 'lie' sub-scale was added to the revised EPQ-R, as a measure of a social desirability bias when responding to the personality measure. It is not classified as a personality trait, but within certain contexts high scores may be considered in light of other factor scores. However, subsequent research shows disparity in how the scale should be viewed (Jackson & Francis, 1999). It should be highlighted that the lie scale has not been considered within this thesis. Consistent exploration of such results, in the manner suggested by the EPQ-R manual (Eysenck & Eysenck, 2006) would not be feasible. Furthermore, its strong relationship with neuroticism (Jackson & Francis, 1999) and indecision surrounding its definition suggests that research would not be warranted.

The scale is made up of 48-items, with yes / no dichotomous responding. Scores for each factor range from a minimum of 0 to a maximum of 12; and are determined by a scoring criteria sheet. Despite its short length, the scale is statistically comparable to its longer predecessors (e.g. Barrett & Eysenck, 1992; Francis, Philipchalk & Brown, 1991). Furthermore, reliability is only slightly diminished. For extraversion, the scale has alpha coefficients of .88 for males, and .84 for females. For neuroticism, reliabilities are .84 for males and .80 for females. Psychoticism reliabilities are the lowest at .62 for males and .61 for females. It is emphasised that Eysenck's personality assessments are tailored to be used on a normal population.

3.3 SOCIOTROPY AND AUTONOMY

3.3.1 JUSTIFICATION OF CHOICE

In addition to Eysenck's three-factor model, the thesis will also look at more specific aspects of personality. Amichai-Hamburger (2002) summarises a number of independent traits and cognitive assets, which would be of benefit to explore in an online context. Such traits include need for closure, innovators, locus of control, attachment style, and risk taking.

However, the two personality 'modes', sociotropy and autonomy (Beck, 1983), have yet to be considered. These two variables are specifically concerned with the importance and dependence an individual places on others when considering their own behaviour. Essentially, sociotropy refers to an enhanced need for belonging and acceptance, whilst autonomy focuses on a need for personal identity and achievement. Again the social aspect of behaviour is salient within these factors,

making their exploration suitable for a CMC context. Given that the media often focuses on the narcissistic and attention-seeking features of SNSs (e.g. Ivens, 2010), it was thought that incorporating these modes would explore an interesting dichotomy of use in terms of those who rely on social feedback and those who do not.

3.3.2 INTRODUCTION TO SOCIOTROPY AND AUTONOMY

Sociotropy and autonomy were created in response to Beck's patient and clinical reports, which suggested a potential personality predisposition to a vulnerability towards depression. According to the diathesis-stress model (Beck, 1967), high scorers of sociotropy who cannot satisfy their need for belonging, and high scorers of autonomy who cannot satisfy their need for personal independence, will be more susceptible to depression; whilst satisfaction of their needs will lead to enhanced psychological well-being (Raghavan, Le, & Berenbaum, 2002). The dimensions represent two opposing personality types, with high scorers classified as "socially dependent" and "autonomous" (Beck, 1983).

3.3.2.1 *SOCIOTROPY*

According to Beck (1983), sociotropy refers to a person's need and dependence on positive communication and exchange with and from others. This need may be due to passive-receptive, narcissistic or feedback purposes. It is suggested that individuals who score high on these dimensions crave positive social inputs to be gratified, which is assumed to affect their everyday motivations. They have an immense need for group belonging and seek approval from others around them. Thus their need for personal identity is diminished. Sociotropic individuals may become susceptible to depression following negative social situations, such as

disapproval from others (perceived or actual), interpersonal loss, or rejection (Cappeliez, 1993).

3.3.2.2 AUTONOMY

In essence, high autonomy scorers are the opposite of this, referring to a person's need for independence, control and solitude. As surmised by Cappeliez (1993), sociotropy revolves around feelings of inferiority with others, whilst autonomy is more concerned with strong-will, individuality and determination. A high scorer will strive for achievement and success. An enhanced vulnerability to depression may arise through situations of perceived failure, loss of control, or a lack of independence (Cappeliez, 1993).

3.3.3 SAS SCALE (SEE APPENDIX 11.1.1)

Beck, Epstein, Harrison and Emery's (1983) Sociotropy - Autonomy Scale (SAS) was used to assess level of sociotropy and autonomy. The scale is made up of 60 items, split evenly between the two personality modes. To complete the scale, participants are required to select the percentage of time that they feel they experience each item statement, on a scale of 0% to 100%. These percentages are then translated into a score of zero to four; each score increasing by one per increment of 25%. Possible scores therefore range between zero and 120 for each dimension. Both scales have been found to have high psychometric properties, with scales yielding an internal reliability coefficient alpha of .90 for sociotropy and .83 for autonomy (Beck et al., 1983). Support for good convergent and discriminant validity has also been shown when comparing correlations to the Depressive Experiences Questionnaire and Dysfunctional Attitude Scale (Rude & Burnham, 1993), in addition to high test-retest scores of .75 and .69 (Robins, 1985, cited in Pusch, Dobson, Ardo, & Murphy, 1998). Despite the clinical origin of the

factors, the scales are applicable to the general population and were not created exclusively for clinical samples.

It is suggested that the constructs of sociotropy and autonomy can be segregated into a two-factor structure for each dimension (Bieling, Beck & Brown, 2000), with high reliability alphas through confirmatory factor analysis. For sociotropy these are labelled 'fear of criticism and rejection' and 'preference for affiliation' (alpha of .79 based on 11 items), whilst for autonomy they are 'independent goal attainment' and 'sensitivity to others' control'. However, for these sub-scales generalisability to non-psychiatric samples has not fully been established. Furthermore, there are disagreements surrounding the structure of the factors, with a three factor structure originally being suggested (Beck et al., 1983). For this reason, the scale will be used in its original two-factor form.

3.4 RELATIONSHIP OF VARIABLES

Although Eysenck's three factor model relies on orthogonal factors, intercorrelations within the EPQ-R Short Scale Manual (Eysenck & Eysenck, 1991) suggest a weak negative correlation between extraversion and neuroticism, and weak positive correlations between psychoticism and extraversion, and psychoticism and neuroticism. Although theoretically autonomy and sociotropy are opposites, correlational studies between the variables have not shown high correlations. Beck (1983) argues a negative correlation between .1 and .3 in strength.

Gilbert and Reynolds (1990) explored associations between sociotropy and autonomy (SAS) and Eysenck's three factor model (EPQ). Sociotropy was positively related to neuroticism. Furthermore a sub-factor of the sociotropy scale (concern

with disapproval) was related to introversion. Aspects of autonomy (specifically 'autonomous action' and 'freedom from control') were weakly, yet significantly associated with extraversion. The autonomy sub-factor 'autonomous action' was also weakly, yet significantly correlated to psychoticism.

In terms of sex, on average men have a higher psychoticism score than women; whilst women have a higher extraversion and neuroticism score (Eysenck & Eysenck, 1991). Beck (1983) suggests that females are more likely to score highly on sociotropy, whereas males tend to score higher on autonomy.

3.5 INTERNET USE AND PERSONALITY

Literature suggests that personality may affect how users engage with the Internet (see Orchard & Fullwood, 2010). Swickert et al., (2002) for instance found that many online users limited their online activities to specific types of use. This suggests that users are motivated towards individual media preferences. Exploring personality links to Internet consumption is a pertinent topic in current research (Amichai-Hamburger, 2002), and one that has gained particular interest in recent years.

3.5.1 EXTRAVERSION AND INTERNET USE

Previous research has primarily focused on the relationship between extraversion and CMC use. Using the Eysenck Personality Inventory (EPI - Eysenck & Eysenck, 1964) to investigate personality types and chat room use Anolli, Villani and Riva (2005) found that higher scorers of extraversion tended to spend less time online and used chat applications significantly less than lower scorers in terms of hours per week. This result has been supported in later literature. Goby (2006) used the

Myers-Briggs Type Indicator (Myers, McCauley, Quenk & Hammer, 1998) to investigate university students' preference for offline or online communication. It was found that both extraverts and introverts show an overall preference for offline social communication, yet introverts were significantly more likely to be drawn towards online communication than extraverts. Similarly, Ebeling-Witte, Frank, and Lester, (2007), found that extraversion in university students was negatively correlated with a preference for online communication.

Bargh, McKenna, and Fitzsimons (2002) concept of the "real me" provides an explanation for these findings. The "real me" concept suggests that people are not always able to fully express themselves during social interaction. The "real me" status is achieved when a person feels comfortable and able to communicate effectively. So, for example, those who are shy may feel less comfortable interacting in a face-to-face setting but become able to effectively communicate their ideas to others through CMC. In their exploration of on- and offline preferences, Amichai-Hamburger, Wainapel, and Fox (2002) found that introverts were able to locate their "real me" through online social interaction (in this study, specifically through chat room applications), yet extraverts found their "real me" through offline face-to-face interaction. As locating one's "real me" has such a large influence on psychological well-being, it can be assumed that users will prefer arenas whereby their "real me" can be met. In other words, introverts will prefer to socialise online, whereas extraverts will prefer face-to-face interaction. Introverts may value the unique properties of CMC environments as it provides greater control and reduces personal and social restrictions (Joinson, 2007; Suler, 2004). Thus introverts may benefit from perceived disinhibition, whereas extraverts may find it a hindrance, prohibiting 'normal' interaction. For instance, the perceived

'invisibility' of being online may be advantageous to introverts who would prefer to focus on the communication itself rather than social presence of those interacting; whilst extraverts may value non-verbal communication when interacting. By using regression analysis to build a model of extraversion through Internet usage motives, Amiel and Sargent (2004) found a negative association between extraversion and the motives of group-belonging and feeling comfortable during online interaction within their student sample. This would suggest a rejection of online social activities as a preference for interaction. However, high extraversion scores were positively associated with the motive of being able to voice an opinion, which may suggest that extraverts who utilise CMC are not using sites in an interactive manner, but rather as a reflection of their assertiveness.

Research however has not been consistent. For instance, a study by Kraut, Kiesler, Boneva, Cummings, Helgeson and Crawford (2002), which considered general Internet use, suggested that those who score high on extraversion were more likely to use the Internet to maintain contact with friends and family, meet new people and visit chat rooms. However, although these associations were significant they were also extremely weak. Perhaps these conflicting findings can be explained by comparing the participant sample between studies. Kraut et al.'s (2002) sample included participants of more varied age ranges, with participants as young as ten taking part. The previous studies, however, consisted of samples of university students in the main. It is possible that the larger age range may be one reason for the difference in findings. Younger generations may be more likely to engage with CMC due to peer pressure. Furthermore, the relative popularity of the environment may impact on users. Chat rooms held high popularity in 2002, but later suffered from social stigmatisation. Extraverts may be more likely to follow current trends

and use the most popular communicative platforms of the time in line with others within their social circle.

The above studies discuss general CMC applications. However, as mentioned in the previous chapter social networking sites offer a range of CMC features and focus on the user's existing social network. This may alter how personality types view the site. Focusing specifically on the Israeli nostalgic social networking website HEVREA, Amichai-Hamburger, Kaplan, and Dorpatcheon (2008) investigated CMC preference between extraverts and introverts within a student population, depending on membership of the site. No main effect was found for personality or membership. However, an interaction occurred, whereby extravert members used CMC services more than introvert members, whilst introvert non-members used them more than extravert non-members. The interaction lends itself as support for Amichai-Hamburger et al.'s (2002) research into the "real me" concept. One of the main aims of social networking sites such as HEVREA is to reconcile lost friendships. In order to do this, users tend to create profiles to reflect their offline identity by using their real name and photo. It was suggested above that introverts prefer CMC environments to face-to-face interaction due to an increased feeling of disinhibition. However, if introvert users are restricted to the overt identity of their offline lives, they may not be able to reach the "real me" status required to prefer socialising online to interacting offline. Extravert, and therefore more sociable members, however, may view the network as an opportunity to extend their social relationships further. Thus extravert members with a preference for CMC may be using applications to enhance their offline network connections.

Although research outlined so far seems reasonably consistent, results may be influenced by gender. For instance, in a study exploring Internet categories and

student usage, Hamburger & Ben-Artzi (2000) found a negative relationship between extraversion and reported engagement with online social activities in women. It is thought that introvert women particularly value perceived disinhibition, and therefore socialise online to seek support and reduce emotional loneliness. The authors go on to explain this gender difference further by speculating that women are more appreciative of the social aspects of the Internet for support, due to female links to higher self-consciousness and thus higher awareness of their need for the support. This mirrors previous research concerning social support in general. It is widely accepted that females have more sophisticated social networks, with a vast amount of literature available to imply that women participate in and rely more on social support than men (for instance, Plickert, Côté, & Wellman, 2007). Therefore, an introvert female who struggles to form offline social relationships may require more online support. In this same study it was found that extraversion positively correlated to reported engagement with leisure activities in men (as described by random 'web surfing' and visiting websites with sexual content), which seems to be supported by the relationship between extraversion and the trait of sensation-seeking, that has itself been linked to the use of online sexual materials (Lu, Palmgreen, Zimmerman, Lane, & Alexander, 2006). Findings are further supported by suggestions that online gaming users have higher extraversion scores than non-players (Teng, 2008). This association with leisure activities has not been consistent throughout other research however. Swickert et al. (2002) reported a positive correlation between Costa and McCrae's (1992) NEO Five Factor Inventory (NEO-FFI) measure of extraversion and reported use of online leisure activities within a student population, but results were extremely weak and not confirmed through regression analysis. Due to its link with high levels of excitement-seeking, Tuten

and Bosnjak (2001) hypothesised that higher extraversion scorers within their student sample would positively correlate with reported use of online entertainment activities. However the hypothesis was not established; extraversion did not significantly correlate with the 'entertainment' category or any other category studied ('product information', 'current news' and 'education'). The authors speculate however that this may be due to differences in use of the sites rather than which type of sites are used. For instance, it is possible that extraverts visit similar sites to introverts, but gain excitement by jumping from site to site.

Amiel and Sargent's (2004) regression analysis also suggested that high extraversion scorers use the Internet's instrumental applications, for instance, file sharing websites to download music and tools (e.g. a web browser). Extraverts were also found to reject the Internet for its informational service of providing mainstream news. Unfortunately, there does not appear to be much more research within this area, which makes it difficult to elaborate on these points. A tentative explanation may be that extroverts prefer seeking out information through more social avenues as opposed to solitary ones.

In summary, low extraversion scorers (introverts) generally show a preference for CMC compared to high extraversion scorers, due to the unique properties of computer-mediated communication (e.g. it is more likely that one can remain anonymous online). However, whereas introverts may feel more comfortable escaping their offline identity, extraverts value the ability to expand their offline social networks. Therefore extraverts may be more drawn to SNSs. Understanding motivations of use has been highlighted as a key area, as a lack of differences in general use does not suggest homogeneous usage. Indeed, differences in site usage

between personality types have already been identified by some researchers (e.g. Amiel & Sargent, 2004; Tuten & Bosnjak, 2001). Gender may also influence findings, with some suggestion that women may be more likely to use online communication as a source of social support.

3.5.2 NEUROTICISM AND INTERNET USE

Amiel and Sargent (2004) suggest that high neuroticism scorers value online communal activities; yet they show a dislike for online discussion arenas. Considering the predisposition of these users, it could be argued that they value group membership and perhaps use the Internet in an attempt to escape loneliness. Their ability to control their social contributions may ease some of their social anxieties which may occur offline. Furthermore, their reluctance to participate in discussions can be seen as a by-product of their anxiety. Social Presence Theory (Short, Williams, & Christie, 1976) supports the idea that online discussions could be more prone to a more offensive, aggressive or argumentative environment. High neuroticism scorers would be likely to worry about general confrontation, thus they may choose to avoid such online environments due to their high frequency. This notion is supported by several studies focusing on neuroticism and links to social activities. For instance, Wolfradt and Doll (2001) found a positive association between neuroticism and interpersonal communication motivations for using the Internet. Furthermore, Hamburger and Ben-Artzi (2000), found that in women, neuroticism was positively related to CMC activities. As with extraversion, the female preference for social activities was thought to stem from a greater need for support. This idea has been further supported by the authors' later claim that loneliness mediates the relationship between neuroticism and Internet use rather than being an effect of use (Amichai-

Hamburger & Ben-Artzi, 2003). Again, as with extraversion, Amichai-Hamburger et al., (2002) have also suggested that high scorers of neuroticism can find their “real me” through online social activities such as chat, whereas low scorers will locate their “real me” offline. This has also been found more recently by Tosun and Lajunen (2010) who noted that neurotics are more likely to express their “real me” online generally.

Using Costa and McCrae’s Big Five as a personality instrument, Guadagno, Okdie and Eno (2008) found that female higher scorers of neuroticism were more likely to own a personal blog. However, the effect did not hold true for males. Taking into account the above suggestions, perhaps blogging can be specifically used by women with high neuroticism scores as a way to combat loneliness. The use of personal blogs are often considered akin to online personal journals (Herring, Scheidt, Bonus, & Wright, 2004). The idea that blogs can be used in a therapeutic manner has already been touched upon in clinical research (for instance, Hillan, 2003). Furthermore, Miura and Yamashita (2007) argue that personal blogs can be therapeutic as writing about oneself can allow for better self-awareness and understanding. Blogging may be considered a safe outlet for users to express opinions. As previously mentioned, high neuroticism scorers shy away from online discussions. Blogging may be particularly valued as the interaction is largely one-way, allowing expression of both positive and negative opinions without fear of disagreement that may occur in more reciprocal social settings. Although comments may be left, the user has a higher level of control in dealing with such interactions; either through controlling a response or editing/deleting the comment entirely. Previous blog research tends to support this notion. For instance, research by Fullwood, Sheehan and Nicholls (2009) suggests that blog

users rarely overtly invite feedback from readers. The authors suggest that blogs are therefore written to fulfil self-expression motivations rather than relationship or identity management. Additionally, Mazur and Kozarian (2010) argue that majority of blogs are written in a monologue form, lacking an interactive component. However, the study also suggests that men are less likely to receive feedback than women, therefore suggesting that limited feedback is beneficial. Comments are likely to come from (if the blog occurs in a social networking context) friends that the user has specifically added, or other members of the blogging community, who may be more supportive due to their shared goals. The association with blogging agrees with earlier research suggesting that neuroticism is positively associated with entertainment seeking motives for general Internet use (Wolfradt & Doll, 2001), which the authors suggest provides relaxation and fulfils creativity needs.

The association between neuroticism scores and CMC activities, however, has not been completely consistent. For instance, Peris et al., (2002) noted that female chat users were found to have slightly lower neuroticism scores compared to a comparative female student population. Furthermore, neuroticism score was found to be negatively, albeit weakly ($p=0.07$), correlated to social information exchange applications, such as email use (Swickert et al., 2002). Swickert et al. (2002) also suggested a tentative negative correlation between neuroticism and leisure services, such as playing games. However, this was not supported in a more recent study of online gaming (Teng, 2008).

Further to their regression analysis, Amiel and Sargent (2004) suggested that high neuroticism scorers seek out information services to find alternative news in the hope to learn about potential consequences of life. This could perhaps be linked to

the idea that neuroticism may sometimes be associated with blogging. Blogging about current affairs may help individuals process information that they find distressing in a therapeutic manner. High scoring individuals may want to know more about the world to in an effort to provide a sense of security (Tuten & Bosnjak, 2001). However, studies in this area have been inconsistent. Hamburger and Ben-Artzi (2000), found that neuroticism in men appeared to negatively correlate to information activities, whilst Wolfradt and Doll (2001) suggested that none of the Big Five personality factors, including neuroticism, were linked to informational motives for Internet use.

To conclude, high neuroticism scorers express their “real me” online, which promotes a preference for online social activities; although their anxieties still exist. A tentative link to blogging has been made, and this is perhaps due to the more one-sided nature of the exchange. However, it is cautioned that a gender effect may be present, affecting users’ level of need for support. Research has not been fully consistent, but neuroticism may also be linked to the use of the Internet for acquiring certain types of information.

3.5.3 PSYCHOTICISM AND INTERNET USE

Research connecting psychoticism and the Internet has been extremely limited. Amiel and Sargent (2004) argued that high scorers shunned the Internet as an environment of satisfying social interaction. Instead, the regression analysis highlighted diverse use, with variables such as passing time, seeking pornography, illegal file-sharing, disregarding use for fun, information searching and using Multi-user Domains (multi-player online games) as all contributing toward the model. These results seemingly reflect the individual’s predisposition. For instance, the association with file-sharing reflects previous research linking psychoticism to criminal behaviour (Furnham &

Heaven, 1999). Furthermore, research suggests that anti-social individuals are more likely to click on pornographic links (Shim, Lee & Paul, 2007), whilst sensation seeking (a variable closely related to psychoticism and extraversion) has also been linked to seeking sexual material (Lu et al., 2006). Put together these ideas suggest a preference towards riskier behaviours. Indeed, Fullwood, Galbraith and Morris (2006) revealed a significant association between impulsive nonconformity, traditionally linked with psychoticism, and frequency of chat room use in females. The authors comment that such an association may reflect the user's view of the chat room as being a risky environment, where one can interact with strangers, play with levels of self-disclosure, and partake in or view instances of sexual propositions. However, these ideas have not been researched further. A number of other studies looking at psychoticism and Internet activities have failed to find significant relationships (e.g. Ebeling-Witte et al., 2007; Peris et al., 2002).

Psychoticism is the most difficult of Eysenck's factors to map onto alternative instruments. It is thought that the Big Five dimensions of agreeableness and conscientiousness may negatively incorporate the factor of psychoticism to some extent (John & Srivastava, 1999), with research partially supporting this link (e.g. Draycott & Kline, 1995; Saggino, 2000). Research suggests that both agreeableness and conscientiousness negatively correlate to total time spent online (Landers & Lounsbury, 2006) which supports Amiel and Sargent's (2004) link between psychoticism and passing time. Teng (2008) suggested that online game players were higher scorers in conscientiousness than non-players, whereas Swickert et al., (2002) found a positive relationship between conscientiousness and engagement with leisure activities. However, it should be noted that Swickert et al. (2002), were unable to substantiate the link through regression. This fits the idea that high psychoticism scorers shun leisure activities and perhaps emphasises that

they may partake in MUDs experimentally rather than for social satisfaction or fun. However, again, research has been rather limited and further exploration needs to take place. For instance, Tuten & Bosnjak (2001) failed to link conscientiousness with any specific type of Internet usage.

To conclude, although limited, research so far suggests that high psychoticism scorers avoid social uses of the Internet. Instead they may use forms of CMC to partake in risk-taking behaviours and to leisurely pass time. Conscientiousness and agreeableness have been found to negatively correlate with time online. As psychoticism is negatively related to these variables, the research supports a potential link with time-wasting. However, it is cautioned that research in this field is far more limited than for extraversion and neuroticism. The lack of research linking psychoticism with online environments supports the originality of using the EPQ-R in this field.

3.5.4 SOCIOTROPY AND AUTONOMY AND INTERNET USE

An extensive literature review did not uncover any literature associating Beck's concepts of sociotropy nor autonomy with Internet usage. There may be small pieces of literature that associate subsections of the concepts or similar ideas; but only two articles were found. A subsection of sociotropy relating to need for affiliation (Bieling, Beck & Brown, 2000) has been associated with Internet communication (Peter & Valkenburg, 2006). Those with a higher need for affiliation were more likely to view CMC as a deeper type of communication comparative to face-to-face communication due to the unique features offered, such as increased self disclosure. Furthermore, 'Need for popularity', a variable similar to aspects of sociotropy, was found to be a steady predictor of SNS behaviours such as disclosure, number of friends and routine usage (Utz, Tanis &

Vermeulen, 2012), supporting its' exploration. These results suggest that high scorers of sociotropy will value SNSs particularly highly.

Despite a lack of literature, theoretical speculations can be drawn from the basic definitions of sociotropy and autonomy. The independent nature of the high autonomy scorer may value solitary features of SNSs; whilst high sociotropy scorers may focus on communicative features and profile management in order to control a positive impression towards others. It would be expected that high sociotropic scorers perhaps show less individuality in their online profile; focusing instead on their group social identity. Due to the social nature of SNSs it is therefore predicted that sociotropic individuals will show higher investment in such sites, with a stronger motivation to both use and maintain use with the site. Thus improved social access could be perceived as beneficial for such users who crave positive interaction. Indeed, research by Siegel, Dubrovsky, Kiesler and McGuire (1986) suggests that CMC can reduce one's fear of social rejection, which is particularly high in sociotropic personality types. It is also possible however that the limited context of the Internet may promote negative interactions, e.g. flaming. These individuals may react particularly negatively in these situations. These uncertainties will be explored throughout the thesis.

3.6 SUMMARY OF PERSONALITY AND INTERNET USAGE

LITERATURE

Despite some disagreement, there are evident trends within the literature, which supports personality as a valid variable of enquiry (Orchard & Fullwood, 2010). In consideration of the above, attention should also be drawn to a review by Amichai-

Hamburger (2009), which explores the association between Internet use, personality and individual theoretical perspectives of psychology. For instance, Jung's (1939) ideas of personality co-existence are discussed, with suggestions that introverts can access their underdeveloped extravert personality online, allowing them to experiment with and utilise extravert behaviours. Furthermore, Rogers' concept of the true self is discussed in terms of the real me concept (McKenna et al., 2002).

Literature has tended to focus on associations with generic site use, such as time spent on a particular application. Consequently, very little is known about specific Internet engagement (Hamburger & Ben-Artzi, 2000). To create a more complete picture, research also needs to focus on 'how' personality types are engaging with these applications. As examples of existing literature, Maldonado, Mora, García, and Edipo, (2001) analyzed forum message content of introverts and extroverts to find that introverts tended to send messages containing more information than extroverts, whilst the work of Amiel and Sargent (2004) and Tuten and Bosnjak (2001) above also highlight the importance of exploring motivations behind use and intricacies within use. The regular use of specific activities should not necessarily imply a generic use between different personality types. Conversely, differing personality types may use the same Internet applications, but in a different manner. SNSs are particularly interesting to explore in this respect due to the diversity of communicative features (e.g. public/ private, synchronous/ asynchronous) that users can partake in.

3.7 SNS USE AND PERSONALITY

From the research cited above, assumptions have been made about preferences for SNSs. Indeed, although based on an international site, Amichai-Hamburger et al. (2008a) support the idea that extraverts should prefer SNSs, due to the strong offline saliency that such sites achieve. Furthermore, recent research by Ryan and Xenos (2011) found that Facebook users were more extraverted and narcissistic, and less conscientious and socially lonely than non-users. Three main avenues of research have focused on personality specifically in the SNS context and add credence to the current line of questioning. Pertinent literature exploring personality and SNS usage will be referred to individually within relevant individual chapters of this thesis. However, an overview of such research is provided below.

First, impression formation studies emphasise that users automatically seek out personality information when viewing other users' online profiles (Stecher & Counts, 2008). Indeed, this literature suggests that people can accurately judge someone's personality based on their SNS profile information. Such research follows literature suggesting that personality differences can be discerned from personal webpage usage (Buffardi & Campbell, 2008). For example, Evans, Gosling and Carroll (2008) found accurate self-rater agreements of the Big Five when users of their Social Networking Site and Facebook application YouJustGetMe.com were asked to rate each other. Furthermore, Gosling, Augustine, Vazire, Holtzman and Gaddis (2011) distinguished several types of profile information that observers use to make accurate personality judgments (such as number of friends for determining level of extraversion). This implies that users can recognise subtle discrepancies between personality types, ultimately suggesting that differing personality types set up their SNS profile differently. Accurate observer ratings

have also been replicated within other studies (e.g Gosling, Gaddis, & Vazire, 2007). Evans et al. (2008) were further able to specify aspects of one's profile which may portray such personality differences. More specifically video content, personal self-disclosure and profile picture type held strong influence over observer ratings. Furthermore, a more recent study by Back et al. (2010) clarified that these observed differences matched the profilers' actual personality as opposed to the profilers' ideal self. This would suggest that personality directly translates into the SNS environment through these features.

Second, newer studies have started to consider the specific intricacies questioned within this thesis for alternative personality measures. For instance, Ross et al. (2009) explores a direct comparison between 'Big 5' personality types and visible differences within their online profile, but found limited associations. However this study was later replicated by Amichai-Hamburger and Vinitzki (2010) finding stronger and more significant associations when objective measurements were considered. Wehrli (2008), again using the 'Big 5', found that extraversion showed to be of particular importance in contributing towards SNS usage differences. Extraverts were more likely to join the SNS 'StudiVZ', add more online contacts, and adopt the new technology more readily. Adoption also appeared to be higher for high scorers of neuroticism. Whilst conscientiousness was negatively related to uptake, openness and agreeableness were negligible. Gosling et al. (2011) used a Likert scale questionnaire to associate the Big 5 with frequency of specific Facebook activities. Like Orchard & Fullwood (2010), they conclude that offline personality seems to translate onto SNSs. For instance, extraverts are thought to view SNSs as a way to enhance social engagement, as they would for offline social events. Furthermore, differences in profile behaviours were found to coincide with

these results (e.g. number of photographs uploaded). However, again results were limited with the exception of extraversion. Attention should also be drawn to stand alone studies exploring specific aspects of Facebook behaviour in terms of additional variables. For instance, Buffardi and Campbell (2008) explored the affect of narcissism on behaviour. Using both subjective and objective content analysis, the study found that those scoring higher in narcissism participated in more social activities, and tended to use a sexier and more self-promoting main profile photo. Such research supports the need for exploring alternative personality variables.

Finally, psychobiological testing (such as skin conductance, respiratory activity and electromyography) has suggested that Facebook users enter a sense of heightened arousal whilst using the site (Mauri, Cipresso, Balgera, Villamira & Riva, 2011). If this finding is considered in light of the psychobiological assumptions beneath the personality variables, it is suggested that those seeking high arousal (such as extraverts) will enjoy the site more so than those who prefer lower levels of stimulation. However, in contrast Wise, Alhabash and Park (2010) found reduced psychophysiological activity as Facebook use continued.

Furthermore, facial EMG data suggested that differing levels of activation could be obtained from differing activities. For instance, corrugator (eyebrow muscle) activation increased for those engaging in social searching and decreased for those engaging in social browsing. Therefore it could be argued that users can utilise the site in varying ways to reach their optimal state of arousal. It should be noted here that as Eysenck's three factor model is based on a biological model of arousal it seems particularly useful in the current context. Again, this supports the current choice of personality variables over the Five Factor Model.

3.8 IMPLICATIONS OF PERSONALITY AND INTERNET USE

RESEARCH

Two main theories are presented regarding the moderating effect of CMC on personality; the rich-get-richer or social enhancement hypothesis (supported by the work of Kraut et al. (2002), and Walther (1996)) and the poor-get-richer or social compensation hypothesis (supported by Gross, Juvonen & Gable (2002), Hamburger & Ben-Artzi (2000), and Valkenburg, Schouten & Peters (2005)). The rich-get-richer argument proposes that socially skilled individuals can capitalise on CMC by using online interaction as a supplement to their offline social life. On the other hand, those advocating the poor-get-richer hypothesis argue that socially unskilled individuals (such as introverts) can benefit from the unique properties of CMC in order to enhance their communication skills, and compensate for their poor offline social skills.

In terms of SNSs, the rich-get-richer hypothesis holds most support through Amichai-Hamburger et al.'s (2008a) exploration of HEVREA, whereby extraverts appeared to benefit from increased social access whilst introverts dislike the offline prominence of such sites. However, although these hypotheses are often seen as opposing views, it has recently been put forward that the competitiveness of the theories may be exaggerated, as both may occur (Orchard & Fullwood, 2010; Zywicki & Danowski, 2008). Indeed, Valkenburg and Peter's (2007) stimulation hypothesis suggests that 'everybody-gets-richer'. As such one may assume that personalities are able to utilise aspects of SNSs that they will gain the most from. This coincides and shows support for the uses and gratifications approach.

Leading on from these hypotheses, research has debated whether SNSs are used as a supplementary or substitutive form of communication to face-to-face interaction. Recent research suggests that communication is supplementary; yet certain individuals may heavily rely on SNSs as a form of interaction (Kujath, 2011). A time-diary study by Jacobsen and Forste (2011) also found that SNS interaction is used to facilitate one's offline social life, finding a positive relationship between usage and face-to-face interaction.

3.9 ALTERNATIVE PERSPECTIVES

The translation of personality to an online context is not without its challenges. The use of self-report personality testing relies on the stability of trait theory. This is further emphasised with the adherence to Eysenck's biopsychological model. However, Internet research has built a foundation of work on fluidity of the self online, which may at face value appear to contradict the theoretical underpinning of the traits explored. A strong example of this would be Turkle's (1999) notion of multiple identities. Turkle maintains that the Internet allows individuals the ability to reinvent themselves through rewriting their personality. Through this individuals are able to experiment, ultimately affecting their offline persona (Turkle, 1995). Indeed Turkle quotes that the Internet "makes it easier for the shy to be outgoing, the "nerdy" sophisticated" (Turkle, 1999; p. 643). This notion of multiple personalities also reflects the 'real me' concept of Bargh, McKenna, and Fitzsimons (2002), which suggests that the Internet allows individuals to access parts of their personality that would otherwise be unreachable.

Joinson (1998) and Suler (2004) build on this idea further by discussing the notion of online disinhibition. The authors differ in their core ideas. Suler's (2004) model

suggests that Internet users may be more unrestricted in their communication depending on the perceived presence of six variables: dissociative anonymity, invisibility, asynchronicity, solipsistic introjections, dissociative imagination, and minimised authority. Joinson (1998) on the other hand suggests that disinhibition reflects online behaviour that is uncharacteristic of the user. Regardless of definition, online disinhibition allows users to experiment with their identity and interaction. For instance, Young and Rogers (1998) suggests that CMC offers a unique environment for the socially fearful or non-conformists to experiment without previous limitations of intimidation. If the self online is a fluid state, it is difficult to comprehend how personality can remain static.

Although such research has been fundamental to the understanding of our online self, the current thesis argues for the suitability of a trait approach. Research on multiple identities derives from the exploration of earlier environments. For instance, Turkle's research largely stems from Multi-User Dungeons (MUDs), which allow individuals to physically represent themselves through online beings. The realm of SNSs do not fulfil Suler's (2004) criteria of online disinhibition – SNSs are centralised around one's offline life, reducing a users dissociative anonymity and potential for solipsistic introjection; invisibility is reduced due to automatic updates within one's profile and news feed; asynchronicity is reduced due to instant notifications through mobile technology; and there is an increased sense of authority due to Facebook restrictions and media awareness of offline prosecutions. Taking Joinson's (1998) more generic definition, online disinhibition may still be encouraged due to the lack of social cues inherent within a CMC environment leading to uninhibited behaviour. For instance, this may lead to perceived social norms holding less importance (Kiesler, Siegel & McGuire, 1984).

However, it is argued that such disinhibition will not lead all personality types to experiment with their identity. Rather some personality types may be more likely to push the boundaries of their existing offline behaviour to further fulfil the needs of their disposition.

The current thesis hypothesises that personality types will be motivated to fulfil their offline needs, and will therefore generally use online features that are consistent with their offline disposition. Although a critique has been developed it is argued that research surrounding the fluidity of personality does not fully contradict the research at hand. Rather, this research reflects the person-situation debate of traditional psychology (Mischel, 1968) whereby personality does not always correlate with behaviour across situational contexts. Indeed, such findings may in part reflect a predisposition for certain personality types to be more likely to experiment with their online behaviour. For instance, those who find social interactions overly stimulating (i.e. introverts) may use online communicative features without reaching their saturation point as they focus on the textual nature of the interaction as opposed to the social nature of interaction. Conversely, those who crave stimulation (i.e. extraverts) may find the environment lacks suitable stimulation and thus limit their feature use, or indeed, partake in risk-taking activities. This leads to the idea that certain personality types may be more willing to experiment with their online identity, thus allowing apparent behavioural deviations whilst remaining within a consistent framework.

3.10 THE INCLUSION OF SEX AND AGE

Throughout the personality literature, the relationship between traits and demographics becomes apparent. Throughout Internet and CMC research

demographics such as age and gender have been found to predict differing results, and was highlighted by boyd and Ellison (2007) as key variables to consider within SNS research. Despite an earlier male dominance, gender differences in terms of Internet access seem to have dissipated (Rickert & Sacharow, 2000). This is confirmed by the Office of National Statistics (2011), which reported that gender differences between males and females were minimal; except in the older age groups. For instance, in the 16-24 years old category 98.8% of females had used the Internet compared to 98.7% males. However, in the over 75s, 32.7% of men had used the Internet compared to just 17.4% females. The same data set also suggests that the digital divide between ages in terms of general Internet access has decreased (although a dramatic drop in access still exists for the over 75s). Yet regardless of this, literature so far has supported the inclusion of such variables.

Hills & Argyle (2003) for instance, found that apparent correlations between psychoticism and online activity frequencies were minimised when age and gender were controlled for. Furthermore, the literature above show instances of gender differences (e.g. Anolli et al., 2005; Hamburger & Ben-Artzi, 2000). Colley and Maltby (2008) report that males and females utilise the Internet for different benefits. Whilst men focus on the use of the Internet to benefit their career, women discuss benefits to social communication, availability of information and improvements in shopping. Also, males and females have been found to differ in their self presentation style. Miller and Arnold (2000) found that males were more likely to portray a confident profile, whilst females aim for a friendlier approach.

In a Facebook specific study, Watkins and Lee (2010), identified gender differences within types of self disclosure. Males were more likely to disclose political and religious information, news and videos, whilst females focus on using

communication features. Furthermore, males and females differ in their uploaded content. Again, females were more likely to upload social information (such as photos and videos of friends and family), whilst males focussed on interests and work related information. Nosko, Wood, and Molema (2010), however, identified no sex differences in self-disclosure.

Age differences are also prominent. Foremost, younger users are more likely to use the Internet (Office of National Statistics, 2011) and specifically SNSs (Zickuhr, 2010). In terms of specifics of use, a content analysis study of MySpace by Pfeil, Arjan and Zaphiris (2009) uncovered several differences between age groups (teenagers and over 60's). Most notably, younger users held larger yet less diverse social networks, utilised more technical features of the site, and made reference to more negative emotions and self-references within their profile. Furthermore, age is thought to have a negative relationship with self-disclosure (Nosko et al., 2010), with younger users disclosing more information.

3.11 NOTED LIMITATIONS

Although the importance of other variables has not been overlooked, the main aim of the thesis is to focus on the influence of personality alone. Personality, as an underlying essential property, is known to influence our behaviour (Matthews & Deary, 1998). However, it is maintained that behaviour does not always mimic that which should be expected from personality scores (Argyle & Little, 1972). Within the context of this thesis, it is not argued that personality is a definitive predictor of behaviour. Rather, it is a trend of underlying disposition aside from context and situation.

Furthermore, it is noted that the use of self-report personality tests are not without methodological issues. However, the scales offer an element of practical quantitative consistency throughout the research phases, which would not be afforded as easily through alternative measures. The scales used are high in reliability and well-established within previous research.

3.12 CONCLUSION

Previous literature has highlighted the importance of personality within Internet research, yet studies so far have been limited in their scope (Orchard & Fullwood, 2010). SNSs are a prominent online environment, and offer a diverse range of activities. Such diversity lends itself to personality research surrounding user preferences. Research so far has yielded significant and interesting results, yet EPQ-R and SAS factors are still unexplored despite theoretical support for their inclusion.

The current thesis aims to explore the intricacies of SNS usage and behaviours of differing personality types. Research so far has been piecemeal and inconsistent. By researching differing levels of SNS use, the influence of personality can be viewed in a more comprehensive manner. There are several benefits of the research. Earlier theories of uses and gratifications research held high importance from a media services perspective (Dixon, 1996). It stands to reason that pinpointing motivations which may drive use and investigating behaviours and gratifications in line with these motivations will be of high value for media service providers to customise their sites in an attempt to increase user participation. This holds large benefits for marketing psychology (Eighmey & McCord, 1998). Furthermore, it is important to understand user engagement in order to

investigate any effect that such sites have on individuals, before exploring such effects on society and offline networks (Newhagen & Rafaeli, 1996). The research at hand allows exploration of comparisons between on- and offline socialisation. Finally, the research will hold important implications in terms of well-being and 'at-risk' personality types. Amichai-Hamburger and Vinitzky (2010) argue that research within this area will aid in the understanding of Internet research as a whole.

CHAPTER FOUR: MOTIVATIONS BEHIND SNS USE AND EXPLORATORY ASSOCIATIONS WITH ONLINE BEHAVIOURS (PHASE 1)

4.1 INTRODUCTION

In order to recognise the effect of personality disposition on specific SNS usage, it is first necessary to gain an understanding of the manner in which individuals with different personality profiles engage with such sites. By understanding the motivations which drive SNS use, the findings can provide insight into the features that will be important to varying personality types. Whilst doing this, it is also important to explore potential areas of research for further phases of the thesis. Thus the current chapter explores what motivates personality types to use SNSs, tentative links between SNS usage and personality, and an exploratory line of questioning surrounding associations between personality and generic online behaviours.

4.1.1 USES AND GRATIFICATIONS

In accordance with Niche Theory (Ramirez Jr et al., 2008), new media need to offer competitive resources to attract users and sustain gratification of their needs. Therefore, SNSs offer an intriguing environment to explore uses and gratifications. The amalgamation of synchronous and asynchronous communication features, combined with the offline visual saliency of the site makes it a competitor to many previous media. Furthermore its diversity should lend to the possibility of serving a large variety of needs.

Several studies have already explored user motivations and gratifications derived from SNSs. Urista et al. (2009) investigated Facebook and MySpace use through focus groups, identifying efficient communication, convenient communication, curiosity about others, popularity, and relationship formation as motivations for use. Raacke and Bonds-Raacke (2008) also explored both sites, focusing on the uses and gratifications of users against non-users. The most common uses and gratifications for users included: keeping in touch with previous or current friends, sharing photographs, making new friends, and locating old friends. Nyland et al. (2007) found that MySpace users valued the ability to meet new people, to be entertained, to maintain relationships, to manage social events, and for media creation. Bumgarner (2007) looked at both practical uses of Facebook and motivations driving use. Motivation components discussed were diversion, personal expression, collection and connection, directory, initiating relationships, voyeurism, and social utility and herd instinct (conformity). Finally, Joinson (2008) identified seven factors of Facebook usage, which were labelled as social connection (creating and following Friendship links), shared identities (using group and event features), photographs (viewing, tagging and sharing photos), content gratifications (use of apps and games), social investigation (looking for new contacts and 'stalking' profiles), social network surfing (looking through profiles of those outside one's immediate network), and status updating (making and monitoring statuses and use of the 'news feed' function).

Additionally, motivations of specific SNS features have also been examined. For instance, Park, Kee and Valenzuela (2009) acknowledged four needs that drive membership of Facebook groups: socializing, entertainment, self-status seeking and information. Although these studies are diverse in their motivation labels and

methods employed to devise such categories, similarities can be drawn with communication and relationship maintenance emerging as key factors as expected.

Although these studies offer a valid and useful insight into the motivations of SNS users in general, there is minimal research on factors affecting individual use.

Rubin (2002) details the importance of exploring social and psychological factors, which may reflect the underlying needs of individuals and therefore the gratifications they seek. Personality is one such example of this and has previously been used to successfully identify differences in traditional media choice (Finn, 1997). Motivations highlighted within each of the above studies were often found to relate to additional variables explored, such as sex and age (Joinson, 2008; Park et al., 2009; Raacke & Bonds-Raacke, 2008). However, despite assurances of its importance (Raacke & Bonds-Raacke, 2008), only limited research has yet to explore the impact of personality on SNS motivations (e.g. Amichai-Hamburger and Vinitzky (2010), and Gosling et al. (2011) discuss motivations in an indirect manner when focussing on the link between personality and profile and behavioural differences).

Findings related to motivations of SNS usage are split into two parts. First, motivational components driving SNS use are sought. These components are then associated with personality. Although it is the latter of these results which is the prime aim of the thesis, it is worth emphasising that the results from both parts of this investigation are of theoretical interest.

4.1.2 ONLINE BEHAVIOURS

Research has associated personality with types of Internet use. However, it has neglected to focus on associations with specific online behaviours. By exploring

such associations previous findings can be substantiated by solidifying the direct link between personality predisposition, type of usage and actual behaviour. If personality is associated with such behaviours, this will impact on how future results will be viewed. From an initial review of key online behaviours, four principal behaviours will be explored within the current chapter.

4.1.2.1 SELF DISCLOSURE

Self-disclosure is defined as any communication about the self which is divulged to others (Cozby, 1973). The act of disclosing is an integral part of social communications and relationship development, and has been researched in both online and offline contexts. Research suggests that individuals have a tendency to disclose more in an online social context (Tidwell & Walther, 2002). This is said to be a consequence of increased anonymity and a heightened sense of self-awareness (Joinson, 2001), which leads to hyperpersonal interaction (see Walther's Hyperpersonal Model - Walther, 1996). However, increased self-disclosure is still apparent in SNSs despite the non-anonymous context they employ. Thus anonymity may be sufficient but not necessary for such behaviours. For instance, Sheldon (2009) argues that frequent use of Facebook, increases trust between individuals, and this in turn promotes increased self-disclosures on the site.

Self-disclosure as a measurable construct can be viewed in multiple ways. For instance, Jourard (1971) discusses topics of disclosure, where disclosing attitudes, interests or work information are classified as easier disclosures, whilst talks of one's money, personality or body are classified as riskier disclosures. Wheelless (1978) on the other hand, suggests that type of self disclosure should be classified under the dimensions of honesty, amount, conscious intent and positive or

negative valence, rather than topics of discussion. The latter distinction is of particular interest in the current context. The measurement of honesty is of high importance within the online environment, whereby users may self-disclose misleading information in an effort to improve their self-presentation (Lea & Spears, 1995). Furthermore, the individual subscales allow initial insight into potential consequences of disclosure on well-being. For instance, it has been suggested that large amounts of negative self-disclosure can have a detrimental effect on relationship formations, with the 'listener' being burdened by such disclosures or unable to consistently respond in the desired manner (Greene, Derlega & Mathews, 2006).

It is suggested that motivations behind communication may affect willingness to self disclose (Gibbs, Ellison & Heino, 2006). For instance, those hoping to establish long term offline relationships with those they meet online may be more honest in their disclosures. Thus it is logical that different personalities will have differing views on what to expect from CMC relationships and this may also affect willingness to disclose. Individual differences have been found to exist in self-disclosure behaviours. For instance, in a meta-analysis, Dindia and Allen (1992) report that women have a tendency to self-disclose more than men. However, although extraversion appears to significantly correlate with self-disclosure, research has struggled to associate additional personality traits due to methodological difficulties in quantifying these variables without the implementation of a behavioural measure (Cozby, 1973). Although, research does suggest that socially anxious individuals moderate their level of disclosure (Meleshko & Alden, 1993), which may indicate a potential link with neuroticism or sociotropy.

4.1.2.2 LURKING

Users of Internet applications can either be active or passive in their engagement within a site. However, this should be considered as a continuum rather than a distinction. Those who regularly use a specific application but do not or rarely contribute through posting are known as 'lurkers' (Rafaeli, Ravid & Soroka, 2004). Operationally, a specific time frame may be given (e.g. no postings within 12 weeks of usage; Nonnecke & Preece, 2000); yet official definitions tend to avoid such constraints. Whittaker, Terveen, Hill and Cherny (1998) argue that lurking is still a method of participation. However, those who post are thought to be more satisfied by the applications they use, and feel closer to the community as a membership group (Preece, Nonnecke & Andrews, 2004). Furthermore, intimacy levels differ between lurkers and posters (Rau et al., 2008), with posters tending to be more invested in interactions and more affected by others' opinions (Schlosser, 2005).

Lurking is not a minority behaviour. A study by Nonnecke and Preece (2000) found that 12% of discussion lists explored held over 90% lurker levels. Yet accurate levels are difficult to measure, and fluctuate between media. When results were broken down they suggested a possible 46% lurker-level for health-related discussions lists, but 82% lurker-level for software support discussions lists (Nonnecke & Preece, 2000). Those signed onto a software support discussion list may be looking for generic software problems and so use the answers of others to gratify their informational needs, whereas those in the health discussion will want more personalised support. In line with the uses and gratifications approach, this perhaps demonstrates that a number of lurkers remain 'silent' if they are able to gain gratification from the application without posting. However, a large number of additional reasons for lurking have been identified. From a survey of over 200

lurkers (Preece, Nonnecke & Andrews, 2004), several categories of lurking have been raised. These reasons have been validated in additional studies (e.g. Küçük, 2010). Reasons include, not having a need or reason to post, still weighing up group dynamics or communication strategies before posting, believing their contribution is not of worth, technical or physical constraints, privacy/spam fears, social loafing (Latané, Williams & Harkins, 1979) due to contributions of others, and dislike for the current group dynamics or believing not to fit in (Küçük, 2010; Nonnecke & Preece, 2001; Preece, Nonnecke & Andrews, 2004).

As personality is thought to influence level of participation in social situations (Matthews, Dreary & Whiteman, 2009), it seems likely that personality may be able to predict likelihood of lurking tendencies. However, research has yet to link the current explored personality variables with lurking in this way. Similar studies exploring personality variables however have found significant results. Caspi, Chajut, Saporta and Beyth-Marom (2006) associated the Big Five with participation behaviours, and found that those who actively chose to lurk in an online learning environment were higher in neuroticism. Tan (2011) found that those high in shyness were more likely to lurk in an SNS environment.

Furthermore, Preece, Nonnecke & Andrews, (2004) found that approximately 28% of lurkers believed themselves to be shy and many were anxious about posting, which suggests that those with a high neuroticism score are perhaps more prone to lurking behaviours. Following on from the literature review, introverts and high neuroticism scorers are more likely to share their real me online, yet it appears that high neuroticism scorers may still be apprehensive to post. This may be why they prefer more solitary behaviours such as blogging. Lurkers do not seem to demographically differ to posters in terms of age, gender, education and

employment (Preece, Nonnecke & Andrews, 2004). It appears that individual differences are important but may play a role secondary to context (Caspi et al., 2006; Tan, 2011). Indeed Nonnecke and Preece (2001) argue that personal characteristics form just one of four themes of categories which affect lurking behaviour. Nonetheless exploring lurking behaviours with the current personality variables will be useful in ascertaining participation levels and may aid in the explanation of subsequent behaviours.

4.1.2.3 INTERNET FAKING

Certain types of deception are easier to uphold on the Internet. The lack of nonverbal cues hinders the detection of online deception (Utz, 2005), allowing opportunities to conceal or 'fake' information successfully (Valkenburg et al., 2005). Internet faking in the current context refers to the use of fake information to represent oneself online (Harman, Hansen, Cochran & Lindsey, 2005). There are several different motivations behind deceptive behaviour online; which are thought to reflect the type of deception employed. For instance, Utz (2005) suggests that identity concealment may arise due to privacy concerns, whilst gender switching may reflect someone who wants to play with or explore new aspects of the self. Levels of Internet faking appear prevalent in the online world. For instance, approximately 50 percent of adolescent CMC users admitted to participating in identity experiments (Valkenburg et al, 2005).

Only a minimal amount of research has focussed on the kinds of people who would be more inclined or likely to carry out such behaviours. In a study exploring extraversion/ introversion score, age and gender, Valkenburg et al. (2005) found all variables could significantly predict identity experiment behaviours. Younger adolescent users were more likely to participate in identity experimentation.

Females were more likely to fake an older age. Finally, an interaction between age and introversion predicted pretending to be older or flirtier. More specifically, in younger users, introverts were less likely to pretend to be older or flirtatious; yet the opposite was found in the older age group of adolescents. The authors suggest that older introverts turn to the Internet when they realise a need to connect with others and present themselves favourably, which they cannot do offline due to barriers of their personality.

Such research is of high importance when considering outcomes of CMC use. Children who admitted to high levels of Internet faking were more likely to report lower self-esteem levels, higher social anxiety, higher aggression and poorer social skills (Harman et al., 2005). Although a cause-effect relationship cannot be established, such research has strong implications from a well-being perspective.

4.1.2.4 PERCEIVED PERSONALITY CHANGE

Although it has not been explicitly discussed in past literature, a measure of perceived personality change will be of strong interest. CMC alters the traditional rules of social interaction, allowing certain personality types to reveal their 'real me' online (Amichai-Hamburger et al., 2002). This allows high neuroticism and introversion scorers to feel like their true selves. In this case it may be that personality does not appear to fully translate to the online world. More specifically, individuals may feel that their personality changes online. For instance, as CMC helps the socially anxious to reveal their real me online (McKenna et al., 2002), these users may feel more confident and correspondingly may experience a perceived personality shift. If a particular personality type perceives a change in their personality online it may explain any discrepancies between their online behaviour and that expected theoretically from their personality disposition.

Furthermore, such a personality change may have an impact in terms of well-being.

4.1.3 AIMS AND HYPOTHESES

The current chapter has three key objectives. First, it aims to explore whether personality types differ in their motivations behind using SNSs. Second, it aims to explore associations between personality and general SNS usage, in an attempt to streamline ideas for further phases of research. Finally, it aims to explore any potential link between personality and types of online behaviour. Hypotheses can be built for each personality type within these aims. Although direct hypotheses cannot be stipulated due to the reliance upon the factor analysis, more general predictions can be made.

Hypotheses 1-5 relate to the first research aim, looking at the prediction of motivating factors. 1. Extraverts appear to favour SNSs due to their offline saliency and will therefore be motivated to use SNSs as an additional method of enhanced communication. 2. Due to its association to anti-social behaviour, high psychoticism scorers will be motivated to use SNSs for more unusual or deviant purposes. 3. High neuroticism scorers value elements that they can control and may therefore be motivated to use SNSs as a less anxiety provoking method of communication compared to offline activities. 4. High sociotropy scorers have a high need to please others, and so may be motivated to use SNSs as a way of communicating with others and improving their self image. 5. High autonomy scorers have a need for control and personal success and therefore may use SNSs for motivations relating to personal gain.

Hypotheses 6-12 relate to the second research aim, looking at correlations with frequency of SNS feature use. 6. Extraversion will be positively associated with frequency of SNS use, given that past literature supports a preference for this environment. 7. Following on from this, those who do not use SNSs will be higher in introversion. 8. High psychoticism scorers will be more likely to create groups in an effort to spread their opinion without limitation and partake in solitary activities such as setting up a profile to advertise themselves; whereas a low psychoticism score will be associated with social features such as writing on other people's walls and 'poking' people due to the anti-social nature of the higher scorers. 9. In opposition to this, extraverts will be drawn to social features such as wall communication, private messaging, updating their status, joining groups, searching for friends, and adding friends due to their sociable nature. They will also prefer activities that emphasise their offline saliency, and therefore add photos and videos more so than introverts. 10. High neuroticism scorers may be more likely to use asynchronous features of the site over synchronous, so that they can have more control over their presentation. Thus higher scorers will be linked with sending private messages, blogging, viewing profiles of people they do not know and 'eavesdropping'. 11. High sociotropy scorers will be correlated with self presentation features (i.e. status updates, updating profile picture and information, and adding photos and videos), and monitoring the profiles of others (i.e. viewing friends' profiles and viewing others' photos) in an attempt to make a positive impression. 12. High autonomy scorers will be associated with individual features over social features due to their need for personal control. Thus, autonomy will correlate with selling/buying things, using applications and keeping track of events.

Hypotheses 13-16 relate to the third research aim surrounding online behaviours.

13. Based on Harman et al., (2005), Internet faking will be associated with introversion and sociotropy. Furthermore, it will be associated with psychoticism as these users may be more likely to experiment online. 14. Lurking will be associated with introversion and neuroticism, given that both of these personalities should show a reluctance to participate based on previous research. 15. Perceived personality change will be associated with introversion and neuroticism given the association with the 'real me' throughout previous research. 16. Self disclosure will be associated with several of the personality traits. More specifically, extraversion will be associated with higher amounts of self disclosure as they will aim to develop social interactions through the site; whereas high neuroticism will be associated with lower levels as such individuals will be anxious to reveal too much information. Sociotropy will be negatively related to positive valence as individuals may wish to promote attention through negative status updates. Psychoticism will be negatively related to honest self disclosure as such individuals may post lies in an attempt to cause controversy. Finally, sociotropy will be associated with conscious intent as such users will be more strategic in the way they communicate.

Despite the above specific hypotheses, the aims will also be explored in an exploratory manner, to capture any unexpected findings. Age and sex will also be explored throughout.

4.2 METHOD

In line with uses and gratifications assumptions, media users are thought to be able to accurately self-report motives that drive use. Thus such methods are used in the

current phase of research. Although this method has received criticism from some researchers (c.f. Lee, 2004) it is the most widely used methodology within the approach. Data was collected in an exploratory manner, in an attempt to guide further phases of research. To further supplement motivational data, questions also focused on associations between personality, general SNS usage and generalised online behaviours (specifically self-disclosure, lurking, Internet faking and perceived personality change).

4.2.1 PARTICIPANTS

In total, 244 participants (74% females; 24% males; 2% undisclosed) completed the SNS questionnaire. Ages ranged from 16 to 48 ($M=20$ years; $SD=5.55$), based on 237 disclosures. An opportunity sampling method was used, with participants recruited through a variety of methods, in an attempt to increase participation. Primarily, the study was advertised on The University of Wolverhampton's Psychology department's participant pool database. Students taking part in the study were offered course credit in exchange for their participation. However, the study was also advertised through local colleges. Student status was not specified as a study requirement.

It is worth noting that non-SNS users were welcome to complete the online behaviours section of the questionnaire, as long as they used another form of social Internet application. Thus, 270 participants completed this section.

4.2.2 MATERIALS

Due to the length of the questionnaire pack, each subsection will be discussed in turn. Materials can be accessed in full from the appendices.

4.2.2.1 SNS-SPECIFIC QUESTIONNAIRE (SEE APPENDIX 11.2.1)

The primary purpose of the SNS questionnaire was to explore specific motivations behind usage, to be able to investigate whether personality can be associated with motivation. However, as the questionnaire was exploratory, questions looking at general SNS usage were included to guide future phases. The SNS-specific questionnaire comprised of three sub-sections.

First, four general questions were posed to assess basic application usage. Questions looked at the number of SNSs used, favourite SNS, time spent on SNSs, and frequency of access. Questions were kept open ended, except for the last question regarding frequency. For this question multiple-choice answers were used to ensure specificity in participant answers. Second, a list of 24 possible SNS activities were compiled, for which participants were asked to rate frequency of usage (on a Likert scale of Never (1) to All the Time (6)). Activities and features were collated from previous literature on SNSs (e.g. boyd & Ellison, 2007), and observation of Facebook and MySpace, the two most popular SNSs within the UK at the time (NetRatings, 2008). Finally, a list of possible motivations or 'gratifications sought' that may encourage application use were presented. The list was inspired from previous uses and gratifications research (Ko, 2000; Lo & Leung, 2009; Papacharissi, 2002; Papacharissi & Rubin, 2000; Stafford et al., 1999) to increase concurrent validity. Becker (1979) suggests that the types of gratifications sought tend to be uniform across media and communication channels. Thus by using previous research as a guide, a large scope of relevant motivations can be encompassed. For instance, although habit may be debated as an active motivation, it has also been argued that it is an important driving force behind email checking behaviours (Baker and Phillips, 2007), and was thus included. This is supported by Wright (1975) who argues that an unlimited number of needs can be compiled, as

plausibility of the motivation should be the only criterion of the selection process. Furthermore, Lee (2004) argues that inconsistencies in uses and gratification studies may be explained by unexplored gratifications that have been neglected from the design framework. As personality effects are likely to be subtle (Wolfradt and Doll, 2001), it was considered important to draw upon a purposively extensive list. With this in mind, an integrative approach was sought, as the aim was not to produce the most predictive model of application use, but predict the most differential motivations from a personality perspective. Fifty-three motivations were included in the questionnaire. As with previous uses and gratifications research, items were presented to participants in the form of a Likert scale, ranging from Strongly Disagree (1) to Strongly Agree (6). As a precursor to items, participants were asked "I use my favourite social networking site...".

Initially, the study was piloted on 34 participants, who were required to complete the questionnaire in its entirety and note any mistakes or points of confusion. Furthermore, the questionnaire encouraged further suggestions of motivational items and SNS uses. This was done to check the usability of newly created questionnaires and ensure no important items were missed out. Following participant suggestions and observations of questionnaire completion (e.g. monitoring of answers to extract any misunderstood questions), the questionnaires were modified and re-tested on 19 participants. The final questionnaires differed from the original pilot study in several aspects. First, Likert scale questions were originally made of seven-points. However, following observation of results, it was noted that many participant responses followed a central tendency bias, failing to commit to a positive or negative response. It was therefore decided to remove the middle Likert value. Second there were changes to

the aesthetics of the questionnaire to improve clarity of reading. For instance, a clearer font was used, and alternate lines of questionnaire items were darkened to increase visual usability of the questionnaires. Similarly, the phrase “Please continue to the next page” was added to the bottom of pages to avoid subsequent pages being missed from completion. Finally, the pilot study included an open response question asking for ideas for any missing items or unclear questions. Two suggested uses were added to the questionnaire (to “create groups” and “eavesdrop on other people’s conversations”).

4.2.2.2 ONLINE BEHAVIOURS SCALE (SEE APPENDIX 11.2.2)

An Online Behaviours Scale was created to measure three facets of online behaviour: ‘lurking’; ‘faking’ and ‘perceived personality change’. No previous scales measuring these factors could be located. The lurking scale was made up of 5 items, including two negatively worded items. The initial scale was modified during the pilot stage due to confusions surrounding the word ‘lurking’ itself, with some participants unsure of its meaning. A short definition was added to one of the items to clarify this (i.e. “someone who tends to read what others have written rather than participate”). Unfortunately, internal consistency of this scale was still relatively low after modification (.50), and this could not be satisfactorily rectified through item removal. Caution should be taken when interpreting these results. The low score may be attributed to the general nature of the scale. The scale explores likelihood of lurking generally rather than in a specific context (e.g. within SNSs). Therefore participants may have been conflicted if they lurk in some applications but not others. In hindsight it may have been more beneficial to situate the scales within the context of SNS behaviour. High scores represent

someone who would rather 'lurk' (i.e. passively read content without contribution) online than actively participate through posting content.

Attempts to source the Harman et al. (2005) faking scale were unsuccessful. As such one was created specifically for the thesis. The faking scale also consisted of 5 items to explore motivations and occurrence of faking on online presence with misleading information. Although termed a scale due to similarity between statement themes, it was expected that each statement would be independent of others, as each provides a different motivation behind Internet faking (with a control statement "I have never faked a new identity online"). However, the scale had relatively high internal consistency (.74), perhaps suggesting that those who fake do so consistently across differing contexts.

The 'perceived personality change' scale consists of 4 items (including one negatively worded statement), which measures perceptions of any personality change during the transmission of offline to online social interaction. The scale yielded high internal consistency (.80). A high score represents someone who believes their personality differs when online compared to that of their offline identity.

4.2.2.3 SELF-DISCLOSURE SCALE (SEE APPENDIX 11.2.3)

Gibbs, Ellison and Heino's (2006) online adaptation of Wheelless' (1978) General Disclosiveness Scale was used to measure self-disclosure. The adapted scale manipulates four of the original scale dimensions, making them suitable for CMC situations. The dimensions are honesty (6 items), amount (5 items), conscious intent (2 items), and positive valence (3 items). The scale in its entirety uses a 16-item Likert-scale (strongly disagree to strongly agree); six of the items are negatively coded. The scale was chosen based on two merits. First, Wheelless' scale

explores general self-disclosure rather than disclosure to a specific individual, which increases the suitability of the scale for the present study. Second, Gibbs et al.'s (2006) modified version of the scale is specifically designed to consider the unique aspects of the CMC environment, yet still remains relatively high in internal consistency. The factor loadings of all items are greater than .5, and cross-loadings are less than .4. Cronbach's alpha reliability statistics for each dimension are as follows: Honesty = .77; Amount = .69; Intent = .65 and Valence = .62. Although scores above .7 are usually sought, the authors speculate that these figures may have been improved if trialled on a larger sample. However, it is worth noting, for the current sample Cronbach's alpha reliability statistics were considerably lower at: Honesty = .75; Amount = .63; Intent = .33 and Valence = .39. This may be due to the difference in context to which it was applied. The original scale was tested in an online dating environment, and thus disclosures would be made to new contacts; whilst social networking sites heavily rely on existing contacts. Although the alpha levels are only based on a small number of items, which can question their usability (see Schmitt, 1996), caution should be taken due to an apparent low internal consistency within the scale.

4.2.2.4 PERSONALITY

To measure personality the EPQ-R short form (Eysenck & Eysenck, 1991) was used as a measure of extraversion, neuroticism and psychoticism. Beck's (1983) Sociotropy - Autonomy Scale (SAS – see appendix 11.1.1) was also used to measure the personality 'modes' of sociotropy and autonomy. Refer to chapter 2 for more information regarding these scales.

4.2.3 PROCEDURE

Participants were asked to complete a questionnaire pack consisting of several sections: the information sheet and consent form, an SNS-specific questionnaire, two online behaviour questionnaires and two personality questionnaires. Although a consent form is not necessarily required for the completion of self-report methods, it was considered good practice to include the form. Furthermore, this was believed to increase the perceived importance of the study (in participants). SNS-specific questions were only to be completed if the participant used SNSs, whilst the final behaviours and personality section was to be completed by all participants who used the Internet for social purposes. Questionnaires were freely available to any Internet users wishing to participate; although the study was only advertised at the University and at local colleges. Once completed, participants were advised to return questionnaires in a provided envelope. Participant responses were anonymised through the use of a three-digit unique identification number.

4.3 RESULTS

4.3.1 DATA SCREENING

All answers were screened for possible input mistakes. To check this, it was ensured that answers fell within the necessary range of that particular question. Any explicit mistakes or strong outliers were re-checked against the original questionnaire copy.

4.3.2 PERSONALITY VARIABLES

Personality ranges of participants can be found in Table 1.1. Although there are concerns that participants who volunteer for a specific study may tend to have

similar personality traits (Witt, Donnellan, & Orlando, 2011), a wide range of personality scores were captured for each of the traits studied, confirming the suitability of the sampling method.

Table 1.1: *Personality score distribution among participants completing SNS questionnaire*

	N*	Minimum	Maximum	Mean	Std. Deviation
Psychoticism	239	0	10	2.72	2.04
Extraversion	237	0	12	8.91	3.19
Neuroticism	238	0	12	6.52	3.17
Sociotropy	212	18	112	68.10	17.12
Autonomy	228	41	107	69.20	12.14

** Participants were only excluded if all personality information were missing.*

Personality characteristics were correlated against each other to explore associations between traits. Significant results coincide with those expected from the theoretical underpinnings of each construct. Personality variables were also correlated with age and sex, due to previous research suggesting associations (Cooper, 2001; Eysenck & Eysenck, 1975). Significant correlations could be found within the current results. Age and sex significantly correlated with two personality variables each (refer to Table 1.2). As such age and sex will also be considered amongst relevant results. Exploratory data analysis highlighted non-normality of some variables, and as such, non-parametric tests are used unless otherwise specified.

Table 1.2: Correlations between personality traits, age and sex

	Psychoticism	Extraversion	Neuroticism	Sociotropy	Autonomy	Age	Sex ^{\$}
Psychoticism	-	.041	-.276**	-.392**	.312**	.000	.270**
Extraversion		-	-.235**	.002	.057	-.087	-.105
Neuroticism			-	.432**	-.061	.090	-.216**
Sociotropy				-	-.105	-.290**	-.114
Autonomy					-	.233**	.037
Age						-	-.052
Sex ^{\$}							-

****.** $p < 0.01$ (two-tailed)

\$. Due to the nominal nature of sex, figures are based on point-biserial correlations. All other correlations use Spearman's rho.

$N = 271$

4.3.3 EXPLORATORY QUESTIONS

The first set of questions took an exploratory look at general SNS usage habits, looking at the number of SNSs used, favourite SNS, time spent on the site, and frequency of log-ins.

Participants claimed to use between one and six SNSs. Just under a third of the sample claimed to use just one SNS (29.5%), whilst most participants claimed to use two (42.2%). The number of participants claiming to use more than two SNSs were reduced sequentially (22.1% stated they used three SNSs, 3.7% stated they used four SNSs, 1.6% stated they used five SNSs and 0.8% stated they used six SNSs). Kruskal-Wallis tests were conducted to look for differences in personality variable scores between those who use one, two or more SNSs. Answers were re-categorised into three groups due to the low frequency of users above three SNSs.

Sociotropy score was found to yield a significant difference ($\chi^2 = 6.529$, $df=2$, $p=.038$). Through Mann-Whitney U Pairwise Comparisons, post-hoc checks suggest that those with two SNS memberships were higher in sociotropy score than those with one ($U=1982.5$, $z=-2.56$, $p=.011$; $Mdn=73.0$ and 65.5 respectively).

Of those who stipulated a favourite SNS, the majority of participants chose Facebook (84.6%), with the majority of remaining participants indicating MySpace (14.2%). Only 1.2% of the sample who completed the question indicated a site other than these two sites. Due to the high percentage of multiple SNS users, it can be suggested that only a small number of participants did not use Facebook. Kruskal-Wallis tests were used to compare personality scores between preferences, but no significant differences were found.

Participants were asked to estimate the amount of time on average that they stayed on SNSs during each log in. Answers varied widely, ranging from 5 minutes to 660 minutes ($M=77$; $SD=82$). Correlations were explored between time and personality variables; however associations were non-significant. Furthermore, participants were asked how often they logged onto their favourite SNS. Six options were supplied. Frequency and percentage of sample for each choice can be seen in Table 1.3. It can be seen that most participants reported daily or almost daily usage. Kruskal-Wallis tests to explore differences in personality between each frequency choice were non-significant.

Table 1.3: Frequency and percentage of sample who agreed with each frequency band

	N	Percentage
Three or more times a day	48	19.7
Once or twice a day	114	46.7
Once every few days	62	25.4
Once a week	9	3.7
Once every few weeks	10	4.1
Less often than once every few weeks	1	.4

4.3.4 SNS ACTIVITIES SCALE

Participants were asked to rate the frequency (scale of 1 to 6) with which they took part in a variety of SNS activities. Refer to Table 1.4 for descriptive information for each activity.

Table 1.4: SNS activity frequency

I...	N*	Mean	Standard Deviation
update my profile picture	242	3.01	1.20
update my profile information	242	2.56	1.16
join groups	241	3.03	1.39
view groups that I have already joined	240	2.23	1.17
create groups	236	1.31	.80
view my friends' profiles	238	4.68	1.12
view profiles of people I do not know personally	242	2.81	1.54
use applications (e.g. listen to music, play games)	240	3.33	1.63
send private messages	241	3.84	1.43
write on other people's walls / comment on other people's profiles	242	4.72	1.29
"poke" people	238	2.11	1.43
add photos	241	3.82	1.45
view other people's photos	241	4.60	1.18
tag people	241	3.34	1.68

Table 1.4: SNS activity frequency			
I...	N*	Mean	Standard Deviation
advertise events	241	1.67	1.14
add videos	242	1.61	1.06
keep track of upcoming events	242	2.50	1.39
sell things/ buy things on the marketplace	236	1.29	.82
set up a group or profile to advertise myself (e.g. music band/ business)	241	1.31	.95
update my status or mood	241	4.13	1.64
search / browse for friends	237	3.70	1.47
request people to add me as a friend	242	3.15	1.45
'eavesdrop' on other people's conversations	241	2.87	1.68
use social networking sites to blog	238	1.63	1.10
<i>* Although 244 participants completed the questionnaire, participants were requested to leave the activity blank if it was not applicable to their favourite SNS.</i>			

The most frequent activity reported by participants, was writing on other people's walls ($M = 4.72$), whereas the least frequent activity was to sell or buy things on the marketplace ($M = 1.29$), a feature that no longer tends to be advertised on SNSs. Results were correlated with the independent variables to explore associations (these can be found in Table 1.5).

Table 1.5: SNS activity correlations with IVs

I...	Psychoticism	Extraversion	Neuroticism	Sociotropy	Autonomy	Age	Sex
update my profile picture	-.045 N=237	.249** N=235	.091 N=236	.209** N=210	.138* N=226	-.153* N=235	-.188** N=236
update my profile information	.027 N=237	.117 N=235	.049 N=236	.235** N=210	.080 N=226	-.250** N=235	-.090 N=236
join groups	-.088 N=236	.053 N=234	.122 N=235	.152* N=210	-.035 N=225	-.094 N=234	-.099 N=235
view groups that I have already joined	-.084 N=235	.000 N=233	.048 N=234	.080 N=209	-.023 N=224	.098 N=233	-.023 N=234
create groups	-.018 N=231	.024 N=229	-.089 N=230	.026 N=205	-.171* N=220	.044 N=229	.031 N=230
view my friends' profiles	-.053 N=233	.177** N=231	.170** N=232	.281** N=206	.120 N=222	-.162* N=231	-.136* 232
view profiles of people I do not know personally	.081 N=237	.053 N=235	.086 N=236	.138* N=210	-.014 N=226	-.327 N=235	.010 236
use applications (e.g. listen to music, play games)	.188** N=235	.041 N=233	-.030 N=234	.115 N=209	-.005 N=224	-.197** N=233	.055 N=234
send private messages	-.015 N=236	.089 N=234	.129* N=235	.201** N=209	.071 N=225	.030 N=234	-.274** N=235
write on other people's walls / comment on other people's profiles	-.072 N=237	.225** N=235	.084 N=236	.294** N=210	.080 N=226	-.145* N=235	-.279** N=236
"poke" people	-.052 N=233	.107 N=231	.025 N=232	.107 N=207	.046 N=223	.118 N=231	-.026 N=232
add photos	-.112 N=236	.204** N=234	.171** N=235	.293** N=209	.034 N=225	-.155* N=235	-.272** N=235
view other people's photos	-.044 N=236	.228** N=234	.181** N=235	.253** N=209	.168* N=225	-.077 N=235	-.129* N=235
tag people	-.059 N=236	.238** N=234	.188** N=235	.224** N=210	.020 N=225	-.050 N=234	-.233** N=235

Table 1.5: SNS activity correlations with IVs

I...	Psychoticism	Extraversion	Neuroticism	Sociotropy	Autonomy	Age	Sex
advertise events	.134* N=236	.186** N=234	-.043 N=235	.042 N=209	.107 N=225	.021 N=234	-.048 N=235
add videos	.138* N=237	.104 N=235	.012 N=236	.043 N=210	.138* N=226	-.065 N=235	.070 N=236
keep track of upcoming events	-.025 N=237	.115 N=235	-.019 N=236	.158* N=210	.081 N=226	-.012 N=235	-.023 N=236
sell things/ buy things on the marketplace	.109 N=231	-.083 N=229	.064 N=230	.057 N=205	.003 N=220	-.071 N=229	.051 N=230
set up a group or profile to advertise myself (e.g. music band/ business)	.150* N=236	.008 N=234	-.024 N=235	.023 N=209	-.055 N=225	-.138* N=234	.165* N=235
update my status or mood	-.020 N=236	.168* N=234	.175** N=235	.231** N=209	.082 N=226	-.151* N=234	-.258** N=235
search / browse for friends	-.022 N=232	.189** N=230	.126 N=231	.274** N=206	.101 N=222	-.188** N=231	-.173** N=232
request people to add me as a friend	-.032 N=237	.118 N=235	.096 N=236	.218** N=210	.031 N=226	-.189** N=235	-.065 N=236
'eavesdrop' on other people's conversations	-.025 N=236	.121 N=234	.152* N=235	.190** N=209	-.089 N=225	-.207** N=234	-.016 N=235
use social networking sites to blog	.060 N=233	.027 N=231	.056 N=232	.034 N=207	.001 N=222	-.118 N=231	.020 N=232

***. p<0.01 (two-tailed)*

**. p<0.05 (two-tailed)*

\$. Due to the nominal nature of sex, figures are based on point-biserial correlations. All other correlations use Spearman's rho.

4.3.5 EXPLORING MOTIVATIONS FOR SNS USE

Before associations could be made between personality traits and motivations for application use, it was decided that motivational items should be synthesised to clarify any associations and ease interpretation of findings. Past uses and gratifications literature has tended to use Factor Analysis (referred to as FA) or its similar counterpart Principal Component Analysis (referred to as PCA) to summarise motivations. Both techniques are thought to effectively reduce data into smaller overarching categories where possible, allowing for a labelled decomposition of the variables explored. Although sometimes referred to interchangeably, the methods do differ mathematically, with PCA described as perhaps the more simplistic method. PCA only explores the common factor variance and measurement error, rather than taking a more individual look at each variable's specific variance as in FA. Moreover, whilst FA attempts to estimate factors that underlie the variables, PCA looks at how variables may build on to specific components (Cooper, 2001). However, it is argued that the two methods may effectively produce the same results despite these theoretical and methodological differences (Tabachnick & Fidell, 2007). There is merit to be held for both analyses. Although PCA is thought to be psychometrically sound (Field, 2005), it was more specifically chosen to explore results due to its simplicity over its counterpart. The aim of the analyses is to simplify variables for further regression analysis. Indeed, PCA is noted for its usefulness for simplifying data into a smaller form where possible, and its combinative usefulness within regression analyses has already been noted within the literature (Jolliffe, 2002). Thus Principal Component Analysis (PCA) was chosen as an effective method to consolidate SNS motivations from the questionnaire into a smaller number of components for clearer analysis.

4.3.5.1 PCA ASSUMPTIONS

Although theoretically sound, it is important to assess the suitability of PCA on the current data. Thus a particular subset of assumptions needs to be checked before analysis. Such assumptions range in their importance and flexibility.

First, the number of participants should be sufficient for the number of variables involved in the analysis. Missing data were not included, with the sample 'excluding cases listwise'. As such, the initial sample of the first iteration consisted of 216. Unfortunately, there is not common agreement regarding the number of participants needed for successful analysis. Whilst Guadagnoli and Velicer (1988) suggest in their review that sample size, factor loading strength and component saturation are most important, others still advocate the importance of the subjects-to-variables ratio (STV). Furthermore, there are disagreements within each of these approaches. For instance, Tabachnick and Fidell, (2007) suggest a sample of 150-300 should lead to sufficient results, whilst Gorsuch (1983) argues for a sample above 200. Whereas for those who argue for the importance of the STV, Bryant and Yarnold (1995) suggest a minimum requirement of 5:1, whilst the, albeit disputed (Osborne & Costello, 2004), results of Nunnally (1978) suggests one should strive for 10:1. As the sample size for the current study exceeds Gorsuch (1983) and Bryant and Yarnold's (1995) suggestions, this was considered sufficient.

Second, variables must adhere to certain criteria. Assumptions to consider include: data type, normality, outliers and linearity. Although continuous data are sought, ordinal data may still be suitable if the data falls within underlying metric scaling (Kim & Mueller, 1978). This assumption is therefore met by the Likert scale used for each motivation variable. Through eyeballing variable histograms it is

suggested that normality may have been violated in most instances. However, it is argued that normal distribution of variables is only required when PCA is being undertaken as a task of significance testing as opposed to categorisation as in the current instance (Tabachnick & Fidell, 2007). Any outliers distorting the distribution should also be considered (Field, 2005). Data ranges were screened for any outliers that may have occurred as a result of erroneous data entry, but those that were not outside the possible range of scores were not removed, as it was felt such results may be a reflection of differences in personality. One of the more important assumptions of PCA is that of linearity. Variables should be linearly related, or at the very least non-curvilinear (Gorsuch, 1983). However, it is also suggested that deviation of the assumption is thought to be of more importance within smaller samples (Garson, 2009). From observation of scatterplots the relationship between variables did not appear to be curvilinear, and thus when considered within the sample size, seem appropriate. However, it is perhaps worth noting that strong linearity was not detected.

Variables should also be independent, yet related at the very minimum above the suggested .3 (Field, 2005) or .4 (Garson, 2009) correlation alpha. The initial correlation matrix was analysed to assess this. There were no signs of singularity, with all variables related to at least one other variable with a coefficient of .4 or more. Also, observation of the correlation matrix did not show signs of multicollinearity. It is worth noting that the determinant did not exceed the advised critical value. However, the data shows extensive signs of suitability in other tests. The Kaiser-Meyer-Olkin value was above the recommended figure of .6 at .895, indicating reliability of proposed components (Hutcheson & Sofroniou,

1999), whilst Barlett's Test of Sphericity was highly significant ($p < 0.0005$) further confirming suitability. Anti-image diagonals all exceeded .5 as suggested.

Finally, the percentage of non-redundant residuals with an absolute value greater than 0.05 was assessed. As this figure was only at 15% it was judged sufficiently low enough to run the PCA over its similar counterpart Principal Axis Factoring (PAF), which can suffer from factor indeterminacy.

4.3.5.2 PCA ANALYSIS

Although essentially objective in nature, PCA analysis relies heavily on subjective or intuitive choices to be carried out to its optimal potential. As such the process is often iterative, and needs descriptive commentary in case of further replications. Such issues to consider include rotation type, factor extraction rules and factor confirmation such as a scree test.

Whilst undergoing PCA, it is advised to undertake data rotation in an attempt to ease and clarify findings (Cattell, 1978). There are two types of overarching rotation methods: oblique, whereby components are allowed to correlate through rotation, and orthogonal, whereby components are kept independent whilst rotation occurs. Varimax orthogonal rotation was chosen based on past research within uses and gratifications literature, and its recommendations within statistical text books, as a method of simplification (e.g. Field, 2005). For the purpose of the PCA, as a preliminary stage of analysis, it seems logical to aim for the clearest analysis in order to aid interpretation at a later stage.

At first, the analysis was calculated without fixing the number of extracted factors. However, to optimise results, several iterations of PCA were conducted in order to maximise the effectiveness of the solution. From the PCA's first solution, the

communalities table was checked for occurrences below .5, and these variables were consistently removed after each iteration. Furthermore, those with cross-loadings on more than one factor (above .4) were removed. Although this may appear to be minimalistic, the main aim of the PCA in this instance was to simplify and categorise variables for further analysis rather than creating the best solution for predicting usage of SNSs. This idea is supported by Tabachnick and Fidell (2001) in order to create a cleaner analysis. Forty variables remained within the final iteration, based on scores of 220 participants. Thus the STV settled at 5.5 participants to each variable, which further confirms the appropriateness of the sample size following Bryant & Yarnold's (1995) benchmark of 5:1.

Factor extraction is a subjective process, which may be guided by a number of statistical calculations on one's own knowledge of the research involved. One may be guided by the eigenvalue-one criterion, a highly cited approach, sometimes referred to as Kaiser's criterion (Kaiser, 1960). The criterion is calculated by assessing the variance level within each proposed component. Each variable contributes to the total variance of the component. It is advised that any component with an eigenvalue in excess of one should be retained, as this would suggest that the combined sum of variance from component variables is greater than each individual variable. Thus, it is suggested that component's not reaching the criterion of one should be perceived in a trivial manner and therefore not extracted. The PCA calculated ten components with eigenvalues above Kaiser's criterion of one, explaining 69.42% of the variance. Kaiser's criterion has many positive aspects supporting its usage. First, it is praised for its simplicity, with SPSS automatically calculating the criterion as a standard addition to the PCA process. Its simplicity holds true for interpretation, with the recommended number of

components being easily extracted from the analysis output. However, despite its recommendations, it has been argued that the criterion is most suitable for a small number of variables or when based on a sample size of over 250 providing communalities are high in both instances (Stevens, 1992). Due to the large number of variables and smaller sample size than required, it is perhaps suggested that the test be taken in view of other available information. Cattell's (1966) scree test offers an additional highly-regarded alternative; although it is somewhat more subjective in its decision. The scree test plots eigenvalues for each component, and it is the decision of the researcher to interpret the diagram by looking for the distinguishing break between those with higher eigenvalues and those with lower values. All components after this break are known as "the scree" and therefore disregarded. The accuracy of the scree plot is thought to be relatively high based on a sample of above 200 (Stevens, 1992).

For the current study, observation of the scree plot highlighted a potential three-component solution. However, a second dip can be seen in the scree at ten components, which matches the results of Kaiser's criterion. From recalculating the analysis with a fixed three components, it became apparent that the component number was too constricted and the large numbers of variables within each component could not be classified into a seemingly logical manner. Thus the ten component solution appeared more appropriate and was therefore selected. Table 1.6 shows factor loadings for each component.

Table 1.6: Factor loadings within each component

	Procrastination	Freedom of Expression	Conformity	Information Exchange	New Connections	Ritual	Social Maintenance	Escapism	Recreation	Experimentation
Boredom	.848	.101	.127	.028	.155	.213	.092	.105	.103	-.025
Something to do	.810	.180	-.032	.022	-.094	.165	.098	.006	-.011	.104
Passes time	.786	.076	.182	.003	.251	.105	.017	.040	.155	-.073
Nothing better to do	.768	.201	.089	.003	.016	-.024	.147	.096	-.248	.068
Occupied	.752	.161	.142	.118	.157	.263	.113	.033	.218	-.044
Distraction	.553	-.019	.065	.321	.035	.038	.061	.368	.165	.012
Entertain	.437	.303	.244	.230	.023	.219	.077	.094	.255	.034
Say what I want	.123	.750	.079	.149	.296	.183	.071	.035	.026	.095
Express freely	.231	.727	.096	.217	.110	.127	.098	.108	.076	.136
Opinions	.123	.718	.170	.161	.232	.188	.052	.145	.177	.028
Think about what I want to say	.124	.681	.160	.197	.121	.050	.016	.139	.117	.144
Relax	.337	.584	.068	.240	-.035	.130	.132	.123	.209	.045
Less pressure	.021	.459	.201	.380	.133	.087	.066	.364	-.022	.077
Everyone else does	.171	.145	.806	.025	-.012	.066	.004	.102	-.002	.095
Expect	.018	.149	.782	.082	.230	.124	-.001	.053	-.083	-.010
Thing to do	.222	.121	.717	.084	.043	.165	-.022	.224	.284	-.094
Like others	.049	.022	.610	.354	-.062	-.009	-.140	.051	.086	.295
Have to	.104	.078	.541	.072	.398	.039	.032	-.085	.066	.184
Gain advice	.019	.257	.079	.788	.181	.053	.051	.115	.026	-.041
Information from others	.096	.185	.139	.726	.068	.100	.192	.103	.027	.080
Give advice	.074	.313	.040	.661	.203	.032	.059	.097	.204	.055
Convenient	.113	.217	.281	.521	.106	.238	.177	.230	.194	-.129
Communicate online friends	.014	.179	.019	.044	.778	.035	.077	.149	.124	.066

Table 1.6: Factor loadings within each component

	Procrastination	Freedom of Expression	Conformity	Information Exchange	New Connections	Ritual	Social Maintenance	Escapism	Recreation	Experimentation
Communicate don't know	.154	.140	.183	.194	.775	.166	-.007	.092	-.065	.121
Make new friends	.114	.223	.088	.169	.724	.048	.098	.032	.286	.071
Date	.189	.138	.163	.357	.457	.208	-.129	.066	-.166	.183
Habit	.369	.099	.015	.032	-.031	.752	.188	.154	.062	.051
Routine	.303	.176	.167	.016	.108	.728	.180	.075	.092	-.036
Daily routine	.100	.173	.259	.171	.192	.696	.040	.063	.078	-.003
Favourite	.044	.341	-.083	.274	.180	.509	.051	.106	.329	-.052
Keep in touch	.276	-.026	.002	.197	.112	.102	.772	.018	.130	-.095
Communicate distant friends	-.071	.100	-.038	-.002	.085	.022	.760	.112	.145	-.138
Communicate offline friends	.133	.160	-.033	-.012	-.052	.151	.688	-.113	-.234	-.158
Social Contact	.255	.038	-.002	.263	-.040	.147	.647	-.029	.194	.235
Forget responsibilities	.168	.186	.108	.203	.123	.134	.001	.785	.070	.066
Reality	.155	.260	.142	.152	.123	.134	-.007	.770	.104	.123
Exciting	.127	.285	.157	.138	.166	.137	.082	.168	.761	.084
Fun to use	.236	.302	.062	.158	.141	.316	.265	.046	.616	.015
Pretend	-.046	.083	.205	.062	.205	-.005	-.070	-.012	.002	.795
Lie	.071	.266	.023	-.023	.102	-.015	-.155	.206	.059	.732

a. Rotation converged in 7 iterations.

The extracted components were labelled Procrastination (containing seven variables), Freedom of expression (six variables), Conformity (five variables), Information exchange (four variables), New connections (four variables), Ritual

(four variables), Social maintenance (four variables), Escapism (two variables), Recreation (two variables), and Experimentation (two variables), making variance contributions of 11.465%, 9.590%, 7.699%, 7.580%, 6.977%, 6.393%, 6.185%, 4.793%, 4.693% and 4.040% respectively. Refer to appendix 11.2.4 for an item breakdown within each component. The components have face validity and seem to confirm previous uses and gratifications research ideas.

To check the validity of variable pairings within each component, each of the ten components suggested by the PCA were subjected to scale reliability analyses to obtain a Cronbach's alpha level. These were Procrastination (.893), Freedom of expression (.875), Conformity (.805), Information exchange (.817), New connections (.791), Ritual (.802), Social maintenance (.757), Escapism (.820), Recreation (.831), and Experimentation (.594). These results suggest all but one factor meets the minimum reliability criteria of .7 (George & Mallery, 2003), with most suggesting good reliability. The final factor 'Experimentation' should perhaps be considered with caution due to its lower value, calculated from only two variables.

4.3.6 PREDICTION OF MOTIVATIONS FROM PERSONALITY

Factor scores were calculated, using the regression method, for individuals for each component. To assess the predictive ability of personality, age and sex on component factor scores, variables were entered into several stepwise regressions. Stepwise regressions are often noted for their use within exploratory analysis (Field, 2005); particularly when a large number of variables are present making theoretical data exploration unrealistic. The analysis focuses on the predictive ability of independent variables rather than the optimal prediction of the response variable. This fits the aims of the current analysis, which is not intended to explore

an ultimate model of prediction, but rather assess individual contributions of the independent variables. However, to further confirm suitability, a number of assumptions need to be met for the current sample.

4.3.6.1 REGRESSION ASSUMPTIONS

The data type of variables is an important consideration. Predictor variables are all continuous, except for the variable 'sex' which is categorical. However, as this is dichotomous, it is still acceptable to use within linear regression as a dummy variable. The analysis assumes that predictive variables do not suffer from multicollinearity. The correlation matrix demonstrates that none of the predictive variables correlate particularly highly. However, to further verify this assumption, the variation inflation factor (VIF) and tolerance level for each model with multiple significant predictor variables were explored. It is suggested that the VIF should be below 10, whilst the tolerance level should be considerably above 0 to suggest that multicollinearity is not present. All models satisfied these assumptions. The highest VIF is 1.144, whilst the lowest tolerance is 0.874. Thus it is suggested that the multicollinearity is absent amongst all models and that this assumption is upheld.

It is difficult to specify a specific sample size required for this analysis. Personality effects are likely to be subtle. The sample size chosen is adequate enough to detect significance from smaller R^2 sizes without compromising with overly sensitive or cautious results (Hair, Black, Babin, Anderson & Tatham 2006).

The presence of outliers must also be considered, as significant occurrences may sway the outcome of the model. Casewise diagnostics highlights significant outliers (those above 3 standard deviations) in five of the ten regression models. However, less than 5% of the standardised residuals fell outside the sample range, which

implies that the outliers would have a small influence on the model as a whole. Furthermore, Belsley, Kuh and Welsh (1980) suggest that outliers with a 'Cook's Distance' score of less than 1 should not be removed. For all cases, Cook's distance was no more than .260. This would suggest that all cases should remain. Indeed, it is suggested that one should not remove such cases, ultimately altering the model and reducing generalisability, unless there is strong reason to do so (Hair et al., 2006). It is also suggested that the relationship between the predictors and outcome should be linear in nature. Although not strongly linearly related, the relationship does not show specific signs of non-linear behaviour, such as a strong curvilinear pattern.

Most regression assumptions are concerned with the monitoring of residuals (Berry & Feldman, 1995). The requirement of independent errors suggests that residual terms should not be correlated. This statistic is tested by the Durbin-Watson (1951) test, which relies on a desirable value between 1 and 3 for the assumption to be met. All ten regression models have a Durbin-Watson statistic close to 2 suggesting that this assumption was not violated. It is accepted that predictor variables do not need to be normally distributed. However, regression does assume the normality of residuals, with errors being normally distributed. Normality statistics were calculated on standardised residuals to monitor this assumption. Six of the ten models seemingly violate this assumption. Furthermore, residuals should have constant variance; otherwise referred to as 'homoscedasticity'. To explore this assumption, a plot of residuals versus predicted values were produced for each model. Unfortunately, this assumption does not hold true for all models. Models one and nine seem to demonstrate particularly strong heteroscedastic data. Due to the failings of the last two assumptions in

particular, the data were transformed for those models where the assumptions were not met. However, transformations made little difference to the results of the analysis, and as such it was thought better to leave all models untransformed and continue with generalisability issues in mind.

4.3.6.2 REGRESSION ANALYSIS

All seven predictive variables (i.e. psychoticism, extraversion, neuroticism, sociotropy, autonomy, age and sex) were entered into the regressions below.

Variables excluded from the tables were found to be non-significant, and did not contribute to the models.

Procrastination

The first component labelled 'procrastination' is significantly predicted from age.

All other variables were excluded from the model, which accounts for 17.9% of the variance ($F_{7,175} = 39.089, p < .0005$). Refer to Table 1.7.1 for associated B values.

The negative B value suggests that younger individuals more so than older users, tend to favour the use of SNSs as a method of procrastination or passing time.

Table 1.7.1: Coefficients associated with regression model predicting procrastination score

	B	$SE\ B$	β
Constant	1.550	.251	
Age	-.076	.012	-.428**

Note: Adj. $R^2 = .179$. * $p < .05$; ** $p < .01$

Freedom of Expression

Psychoticism formed the only significant predictive model of the second component, labelled 'freedom of expression'. The model ($F_{7,174} = 6.061; p = .015$) predicted 2.8% of the variance (based on adjusted R^2). Refer to Table 1.7.2 for

associated B values. Those who score more highly on the trait of psychoticism were more likely to favour SNS use as a means for freer expression.

Table 1.7.2: Coefficients associated with regression model predicting freedom of expression score

	B	$SE\ B$	β
Constant	-.201	1.27	
Psychoticism	.097	.039	.183*

Note: Adj. $R^2 = .028$. * $p < .05$; ** $p < .01$

Conformity

Both sociotropy and age significantly loaded onto the predictive model of 'conformity' ($F_{2,173} = 5.885$; $p = .003$), which accounted for 5.3% of the variance.

Refer to Table 1.7.3 for associated B values. Positive B values suggest that it is older users, and those that score higher in sociotropy, that are more motivated to use SNSs to conform to others. Sociotropy held the highest partial correlation coefficient at 0.22 compared to Age at 0.20.

Table 1.7.3: Coefficients associated with regression model predicting conformity score

	B	$SE\ B$	β
Constant	-1.649	.483	
Sociotropy	.013	.004	.236**
Age	.036	.014	.207**

Note: Adj. $R^2 = .053$. * $p < .05$; ** $p < .01$

Information exchange

Only sociotropy score was found to significantly influence the model predicting the 'information exchange' component. The model accounted for 6.1 % of the variance ($F_{1,174} = 12.307$; $p = .001$). All other variables were found to be non-significant and

thus excluded from the model. Refer to Table 1.7.4 for associated *B* values. Those higher on sociotropy were more likely to respond highly on the information exchange component.

Table 1.7.4 Coefficients associated with regression model predicting information exchange score			
	<i>B</i>	<i>SE B</i>	<i>β</i>
Constant	-1.021	.316	
Sociotropy	.016	.004	.257**

Note: Adj. $R^2 = .061$. * $p < .05$; ** $p < .01$

New Connections

The association between the predictors and ‘new connections’ component is significant ($F_{3,172} = 7.248$; $p < .0005$), with the model accounting for 9.7% of the variance in component score. Psychoticism, extraversion and age all significantly impacted upon the regression model. Refer to Table 1.7.5 for associated *B* values. Psychoticism held the highest partial correlation coefficient at 0.204, closely followed by extraversion at 0.203 and then age at -0.189. Those scoring higher on extraversion and psychoticism were more likely to favour SNS use for new connections. The negative *B* value of age should be noted; thus younger users were more likely to value this than older users.

Table 1.7.5: Coefficients associated with regression model predicting new connections score			
	<i>B</i>	<i>SE B</i>	<i>β</i>
Constant	-.189	.341	
Extraversion	.059	.022	.196**
Psychoticism	.104	.038	.198**
Age	-.033	.013	-.183*

Note: Adj. $R^2 = .097$. * $p < .05$; ** $p < .01$

Ritualistic

The association between the predictors and the 'ritualistic' component is significant ($F_{1,174} = 6.576$; $p=.011$), with the only significant variable sociotropy accounting for 3.1% of the variance in component score. Refer to Table 1.7.6 for associated B values. Those higher in sociotropy were more likely to value SNS use for its ritualistic component.

Table 1.7.6: Coefficients associated with regression model predicting ritual score

	<i>B</i>	<i>SE B</i>	β
Constant	-.764	.304	
Sociotropy	.011	.004	.191*

Note: Adj. $R^2 = .031$. * $p<.05$; ** $p<.01$

Social Maintenance

The association between the predictors and new friendships component is significant ($F_{7,174} = 16.266$; $p<.0005$), with variables accounting for 8.0% of the variance in component score. This was accounted for by the significance of the dummy variable sex. Refer to Table 1.7.7 for associated B values. The model indicates that females more so than males are more motivated to use SNSs for the purpose of social maintenance.

Table 1.7.7: Coefficients associated with regression model predicting social maintenance score

	<i>B</i>	<i>SE B</i>	β
Constant	-.182	.080	
Sex	-.684	.170	-.292**

Note: Adj. $R^2 = .080$. * $p<.05$; ** $p<.01$

Escapism

The association between the predictors and the labelled 'escapism' component is significant ($F_{1,174} = 6.085$; $p=.015$). However, the only significant contributing variable was neuroticism, which accounted for 2.8% of the variance in component score. Refer to Table 1.7.8 for associated B values. Those higher in neuroticism were more likely to favour the escapism component.

Table 1.7.8: Coefficients associated with regression model predicting escapism score

	<i>B</i>	<i>SE B</i>	β
Constant	-.392	.179	
Neuroticism	.060	.024	.184*

Note: Adj. $R^2 = .028$. * $p<.05$; ** $p<.01$

Recreation

The association between the predictors and the entitled 'recreation' component is significant ($F_{1,174} = 7.177$; $p=.008$), with extraversion accounting for 3.4% of the variance in component score. All other variables were excluded. Refer to Table 1.7.9 for associated B values. Those higher in extraversion value recreation more highly.

Table 1.7.9: Coefficients associated with regression model predicting recreation score

	<i>B</i>	<i>SE B</i>	β
Constant	-.509	.202	
Extraversion	.058	.022	.199**

Note: Adj. $R^2 = .034$. * $p<.05$; ** $p<.01$

Experimentation

The final component of 'experimentation' was significantly predicted from a two-variable model including autonomy and sex ($F_{2,173} = 5.143$; $p = .007$). The model was able to account for 4.5% of the variance in component score. Refer to Table 1.7.10 for associated B values, which suggest that lower autonomy scorers and males predict this component. Autonomy was found to have the highest partial correlation coefficient at $-.0181$, with sex at 0.169 .

Table 1.7.10: Coefficients associated with regression model predicting experimentation score

	<i>B</i>	<i>SE B</i>	β
Constant	.938	.423	
Autonomy	-.015	.006	-.180*
Sex	.411	.182	.167*

Note: Adj. $R^2 = .045$. * $p < .05$; ** $p < .01$

Prediction of usage from motivational components

An additional stepwise regression analysis was conducted to explore whether the motivations identified could predict time spent on SNSs as a measure of usage. A significant model was yielded ($F_{4,197} = 9.135$; $p < .001$), with usage predicted by four motivations (new connections, freedom of expression, recreation and experimentation). This accounted for 13.9% of the variance. Refer to Table 1.7 for associated B values. Partial correlation coefficients were $.251$, $.220$, $.172$, $-.165$ respectively. The negative B value for experimentation suggests that those who are not motivated by experimentation use SNSs longer per day than those who are.

Table 1.8: Coefficients associated with regression model predicting SNS usage			
	<i>B</i>	<i>SE B</i>	<i>β</i>
Constant	76.866	5.498	
New connections	20.204	5.554	.238**
Freedom of expression	17.505	5.539	.208**
Recreation	14.407	5.862	.162*
Experimentation	-12.693	5.418	-.153*

Note: Adj. $R^2 = .139$. * $p < .05$; ** $p < .01$

4.3.7 BEHAVIOUR SCALES

Psychoticism was significantly correlated with the Internet faking scale ($\rho = .166$; $N = 262$; $p = .007$, two-tailed). Extraversion (negatively) and age were both significantly associated with the lurking scale ($\rho = -.313$; $N = 259$; $p < .001$ and $\rho = .144$; $N = 260$; $p = .020$ respectively). Whereas extraversion (negatively) and sociotropy were both significantly correlated with the scale exploring perceived personality change ($\rho = -.168$; $N = 260$; $p = .007$ and $\rho = .210$; $N = 236$; $p = .001$ respectively). Sex was correlated using a point-biserial correlation, which highlighted a significant correlation with the perceived personality change scale ($r = .128$; $n = 261$; $p = .039$), suggesting that males are more likely to perceive their personality to change online.

For the self-disclosure scale, there are four subcategories within the scale.

Psychoticism and sex (males) were linked with the amount of information disclosed ($\rho = .129$; $N = 258$; $p = .038$ and $r = .132$; $n = 259$; $p = .034$). The subscale measuring positive valence was significantly correlated with sociotropy (negatively) and autonomy ($\rho = -.133$; $N = 233$; $p = .042$ and $\rho = .128$; $N = 247$; $p = .044$). However, neither intent nor honesty was linked with any variable.

4.4 DISCUSSION

The motivational results fit well within uses and gratifications theory, and support the prediction that personality and individual differences may predispose users to particular motivations for using SNSs. The regression models correspond to the theoretical framework of what we would expect from personality types based on their dispositional definition and past research surrounding the traits.

Extraversion significantly predicted the motivations of 'new connections' and 'recreation'. Extraverts are defined as having a high social need and aim to extend their social network at any opportunity (Eysenck & Eysenck, 1975). Furthermore, introverts may not feel comfortable searching for new friends due to the amount of information available about their offline self as found on their profile. Although users can control their level of self disclosure on most SNSs, there is a strong expectation that users anchor their online profile and presence to their offline self. Moreover, SNS content is created not just by the user, but by their network (Walther, Van Der Heide, Kim, Westerman, & Tong, 2008), and thus friends may divulge unsolicited disclosures. It is worth noting however, that although offline saliency is particularly high within Facebook (Ellison, Steinfield, & Lampe, 2007), other SNSs may differ (e.g. the inclusion of profile information in Twitter is optional). Nevertheless, the above assumption fits the literature review, which implies that introverts value more anonymous environments due to a preference of limited offline saliency within their online communication environment. This would also explain the increased entertainment or recreational value that extraverts find online. Thus, when uses and gratifications theory is considered, it fits well that extraverts would prefer this environment, as both a recreational space, and one in which new contacts can be pursued. Hypothesis 1 is supported.

Higher psychoticism scorers were found to be motivated to use SNSs as a potential arena of freer speech. Again this fits well with the underlying disposition of psychoticism, which assumes that higher scorers are non-conformists and shun social norms (Ortet, Ibanez, Moro, Silva & Boyle, 1999). Further analysis in phase two may perhaps show a better understanding of how this motivation transfers into a behavioural context. For instance, it could be that those with higher psychoticism scores are more likely to swear or be offensive in their profile or online communication style. Suler's online disinhibition effect (2004), stipulates that the unique features of an online environment, such as reduced authority and invisibility, allows users to feel uninhibited. This may result, for instance, in higher levels of self disclosure (benign disinhibition) or more negative behaviour such as increased aggression or overt swearing (toxic disinhibition). Suler (2004) further suggests that personality can interact with the effect, which can influence the type and level of disinhibition displayed. Due to the definition of psychoticism, it can be hypothesised that higher scorers may be more likely to use toxic disinhibition resulting in outspoken or opinionated behaviour without restriction; however, specific behavioural research will be needed to clarify this hypothesis. However, attention should also be drawn to Joinson's (1998) definition of disinhibition as acting in an uncharacteristic manner from that expected from a face-to-face situation. Joinson (2007) argues that it is perhaps misleading to suggest that disinhibition is an effect of the Internet, as Suler does not consider the user's choice of media and intention of use within his framework. Thus, those with higher psychoticism scores may be drawn to CMC because it allows disinhibition through a unique social environment void of traditional social norms, allowing for freer speech. Joinson's ideas hold support for uses and gratifications theory by considering the impact of a user's needs on their behaviour and choice of media

use. Psychoticism was also significantly predictive of the 'new connections' motivation. This can be explained in two ways. First, higher scorers may find it easier to find others online who they share interests with. Higher psychoticism scorers are rarer in normal populations than lower scorers. The Internet's searching facilities, and indeed the 'groups' facility on social networking sites specifically, may enable higher scorers to seek out those similar to themselves. This may be particularly important, as high scorers may struggle in face-to-face interactions due to their poor social skills. Previous research has found that females with high impulsive non-conformity are more likely to use chat rooms (Fullwood et al., 2006). Chat rooms tend to focus on communication with strangers, and as non-conformity is associated with psychoticism, this supports the idea that these users enjoy talking to those unknown to them. Alternatively, seeking out new connections is potentially exemplarily of a more risky behaviour available on SNSs; particularly with Facebook, which is heavily based around one's offline social network. Psychoticism has previously been linked to riskier online behaviour such as viewing pornography and using illegal file sharing software (Amiel & Sargent, 2004). Thus, it could be that higher psychoticism scorers are seeking out new contacts in a non-conformist manner. Although it is difficult to predict behaviours without further research, this could potentially include 'trolling' (intentionally antagonising others to illicit retaliation) or making sexual propositions; both of which have been informally commented on by the media (e.g. Dowd, 2011; Kylstra, 2010). Although hypothesis 2 cannot be directly supported, results seem logical and further behavioural research may lend additional support. High neuroticism scorers reported being more likely to use SNSs for escapism. This may suggest that these users perceive SNSs as an arena of escapism from their

offline life. Research has already found that females with high neuroticism scores find CMC interactions less anxiety provoking than face-to-face interactions (Rice & Markey, 2009). Furthermore, Wise et al. (2010) found diminished psychophysiological activity during Facebook navigation. When considering this in light of Eysenck's arousal theory, high neuroticism scorers seek out activities that reduce stimulation of their arousal system. Therefore, perhaps these scorers are motivated to use SNSs as a social outlet; they feel more comfortable interacting in this manner, ultimately reducing their anxiety. Alternatively, these users may experience more anxiety in everyday life generally, and therefore value SNSs as a general distraction. Hypothesis 3, appears to be supported.

Sociotropy was predictive of the conformity, information exchange and ritual motivations. Again, this fits well with uses and gratification predictions based on the disposition of sociotropy. Sociotropic individuals are concerned with how others view their behaviour. Thus these users may believe that conforming to current trends, such as SNSs, will improve their acceptability and social standing. This may also be due to a fear of 'missing out' on information or communication that occurs solely on the SNS. In terms of the information exchange motivation, sociotropic individuals may feel more confident both asking and giving advice in the CMC environment due to the lack of social cues, which may restrict them in an offline environment. Sociotropic individuals are highly sociable in nature, so it also makes sense that these individuals will enjoy the ability to exchange information as an addition social medium. Through mutual information exchange, sociotropic individuals can keep up with others, allowing a sense of in-group membership. Alternatively, it may also be associated with an impression management strategy, with individuals believing that such activities will make them more favourable to

others. Results also suggest that sociotropic users may use SNSs in a somewhat ritualistic manner, either through their usage (e.g. access the site the same time everyday) or behaviour (e.g. updating their status regularly). From the results of the supplementary questions, the latter suggestion is particularly supported. Further investigation is needed to shed light on why this may be. Particularly research must focus on what exactly sociotropic users are doing once they log on to an SNS. For instance, if users are logging on regularly to check their Friends' profiles it may be that they are involving themselves in monitoring behaviours, to ensure they are updated on any latest news. Indeed, a ritualistic behaviour of monitoring has already been suggested by Urista et al. (2009), who found that some SNS users reported that they would often find themselves repeatedly checking the website for any new responses. This again may in turn be perceived as helping their social standing by better preparing them for any upcoming socialisation or as a self-soothing process to relax any anxieties stemming from a feeling of 'missing out'. Although hypothesis 4 did not highlight these motivations explicitly, similarities can be seen.

Autonomy was found to be predictive of the experimentation motive. The negative Beta value suggests that lower scorers are more likely to use SNSs for this purpose. Those with a higher autonomy score seek a high level of control, thus this finding may be explained by the high autonomy scorers taking great care to control their SNS use and create an accurate impression of themselves. The lower scorers, therefore, may be more likely to experiment and play with their self-representation. Again this will be tested with more behavioural based studies, such as that found in phase 2. This association was not expected by hypothesis 5.

Age was predictive of 'conformity', and negatively predictive of the 'new connections' motivations. These two findings seemingly validate one another. If older users are using SNSs only to conform, it makes sense that younger users would be more likely to try out the full range of available activities. Age was also predictive of the procrastination motivation. This supports previous literature which also tends to suggest that age is negatively linked with procrastination in other areas, such as academic procrastination (Balkis & Duru, 2009). Thus younger people may be more prone to procrastination generally. Alternatively the finding may reflect differing attitudes towards technology. For instance younger users may be more comfortable using technology than older users, and thus more likely to choose Facebook over offline tasks as an avenue of procrastination.

In terms of sex, the results show a female preference for general social maintenance. This link is well established both in online and offline research. For instance, Joinson (2008) also found a female preference for social connections within SNSs, whilst Watkins and Lee (2010) found that females over males are more likely to participate in social based activities on Facebook. Females tend to rely more on emotional support than men (Barbee et al., 1993). Furthermore, Di Leonardo's (1987) early offline research suggests that women tend to maintain kin and friendship links more so than men. Therefore, it appears that females value SNSs as an easy method to maintain their social network. Sex was also predictive of the experimentation motivation, suggesting that males may be more likely to lie or experiment with the information they are placing on SNSs. Previous research does suggest differences in gender in terms of type and use of deception. For instance, Whitty (2002) found that men were more likely to lie than women in chat rooms. Furthermore, males have been linked to using SNSs with a motive of dating

(Raacke & Bonds-Raacke, 2008). Thus this finding may be linked behaviourally to creating a more favourable profile impression. However, the result should perhaps be considered from a well-being perspective. The specific use of experimentation, and outcomes of such use, need to be explored in order to understand the consequences of such experimentation (Valkenburg et al., 2005).

The final regression analysis explored the strength of motivations at predicting SNS usage, in terms of time spent on SNSs per day. Results seem to support logical assertions underlying each motivation. The motivation of new connections was the strongest predictor. It makes sense that users looking to make new friendships on SNSs would have to be active in their use and spend time on the site, as opposed to, for instance, social maintenance, where an existing link and occasional line of communication may suffice. Those motivated by freedom of expression also tended to use SNSs more, which may reflect the unique ability of SNSs to allow for communication outside of prescribed social norms yet remain in a 'nonymous' environment. The predictive ability of recreation seems self-explanatory, with those using the site for enjoyment using it more often. Finally, those who do not want to experiment use SNSs more, which may reflect the inadequacy of SNSs to experiment due to their offline saliency. Such users may invest more time into alternative online sites whereby anonymity is emphasised. From this basic analysis results appear to support the uses and gratifications paradigm.

Personality does not seem to influence fundamental usage of SNSs, such as whether users choose to use a SNS or their frequency of use. Thus, hypotheses 6 and 7 were not supported. The popularity of SNSs may negate personality differences in choice of use, with membership becoming ingrained in society as an essential social tool. Furthermore, the diversity of features within such sites (e.g.

both asynchronous and synchronous communication methods) may attract a range of personality types. This supports the idea of differential usage within such sites. In terms of frequency of use, such differences may be masked by inconsistencies in self-report accuracy. Indeed, previous studies have highlighted difficulties in attainment of accurate time accounts. The only significant result within general usage terms relates to the finding that sociotropy score differed between those using one or two SNSs. At the time of data collection Facebook and MySpace were the most widely used SNSs in the UK. Indeed, data collection took place during a switch that saw Facebook catch up to MySpace's popularity (Arrington, 2008). As such, it seems logical to assume that those high in sociotropy would seek membership in the most popular SNSs, to ensure that they are viewed positively by users of both sites. Furthermore, this may result from a function of a fear of 'missing out', which fits in with the significance of sociotropy in the prediction of conformity and ritual behaviour.

To further explore SNS usage in light of the gratifications already discussed, participants were asked to rate their frequency of usage on a list of SNS functions. Correlated against the independent variables, results provide insight into possible behavioural usage, as well as acting as a potential validation tool for the motivational links above.

Psychoticism score correlated with relatively few SNS functions, suggesting little difference between high and low scorers. Associations seem to be found for non-social aspects of SNS usage, with significant positive correlations held for the use of SNSs to use external applications (such as games or music players), to advertise events, to add videos, and to promote their self or business. The results support hypothesis 8, but do not seem to fit the motivational links highlighted previously.

Psychoticism was not correlated with items relating to making new connections, such as browsing friends or viewing the profiles of those not known personally. However, the correlations do relate to perhaps more adventurous uses of SNSs, and may hold insight into behavioural ways in which the 'freedom of expression' motivation may show itself.

Motivations predicted by extraversion appeared to be supported by the behavioural correlations. Extraversion was associated with browsing for friends; supporting the 'new connections' motivation. It was also correlated with updating items promoting one's offline saliency, such as updating the profile picture and status, adding photos, viewing others' photos, tagging people in photos, and advertising events. This would support suggestions from the literature review and from hypothesis 9, that extraverts over introverts value offline saliency within a CMC environment. This added to the increased social element of correlations, such as viewing friends' profiles and writing/commenting on the profile of others, also lends support for the 'recreation' motivation.

It is difficult to provide support for neuroticism's prediction of the 'escapism' motivation with the behavioural items provided. Neuroticism was correlated with viewing friends' profiles, sending private messages, adding, viewing and tagging photos, and updating status or mood. The sending of private messages may reflect an inhibition for public communication; however, this does not seem to tie in with frequency of status updates. It may be that the content of such status updates reflects the motivation in a unique way. For instance, updates may revolve around seeking support, with users receiving gratification from the responses of others. Alternatively, such users may update their status with trivial updates in an attempt

to distance themselves from any current anxieties. Further research is required to explore these ideas. Hypothesis 10 was partially supported.

Sociotropy was positively correlated with a large number of SNS activities, as suggested by hypothesis 11. This could perhaps be explained by low usage of lower scorers who are not as socially focussed as higher scorers. Sociotropy seems to be associated with keeping an up-to-date profile, with significant correlations with updating profile picture, updating profile information, adding photos, tagging photos, and updating status. This may feed into the ritual motivation of use. Users may be inviting attention through such updates, in attempt to receive feedback from others. Furthermore, assumptions of monitoring behaviours may be validated by associations with the items for viewing friends' profiles, viewing photos, keeping track of events and eavesdropping on the conversation of others. Moreover, the 'information exchange' motivation may be somewhat evident through communication-based correlations with joining groups, sending private messages, writing on others' walls, and making friend requests. It is difficult to explore the conformity motivation in terms of the hypotheses stipulated. However, from these correlations, it is perhaps surprising to note that sociotropy was not predictive of some of the other motivations such as 'new connections' (particularly due to correlations with browsing for friends and viewing profiles of non-friends) or 'social maintenance'. Thus perhaps sociotropic users value the ability to explore the profiles of others in a non-social manner. This may be a part of their self-soothing strategy, as mentioned above, to monitor up-to-date information, and reduce anxieties of potential negative appraisal by others.

Autonomy was positively correlated with updating profile picture, viewing photos of others and adding videos, and negatively with creating groups. The

individualistic nature of a high autonomy scorer would explain a preference for solo over group activities. However, it is difficult to see any associations between the correlations and the motivation of experimentation. Again, further research is required; hypothesis 12 was not supported.

Age was negatively correlated with a large number of items. The results suggests that younger users are associated with more frequently updating their profile, with correlations being shown for updating profile picture, updating status and profile information, and adding photos. The 'new connections' motivation may be validated by the negative correlations with browsing for friends, and making friend requests. Additionally, age was negatively correlated with viewing friend's profile pages, setting up groups to advertise self or business, using applications, writing on the profile of others, and eavesdropping on conversations. The large number of correlations suggests that the conformity assumptions for age may hold true, with older users more likely to engage in minimal usage as a response to others using the environment, and younger users indulging in more unusual functions of SNSs (such as self advertising). Furthermore, the procrastination motivation of younger users may be evident from the frequency of activities.

From the motivational analysis, females were found to predict the motivation of social maintenance. This is seemingly backed up by correlations with updating profile picture and status, viewing friends' profiles, sending private messages, writing on the wall of others, and adding, viewing and tagging photos. These activities lend some support to the findings of Raacke and Bonds-Raacke (2008), who suggest that women are more likely to change their appearance and Joinson (2008) who found a link with women and photograph activity and status updating. For males, the only correlation was with advertising self or business. This may be

linked with the motivation of experimentation, but this is hard to justify with the information at hand.

Although the online behavioural scales within the questionnaire refer to generalised online social behaviours, rather than to the SNS environment specifically, the results provide an indication into likely behaviours. Certain personalities correlated with the online behaviours, although not always in line with previous research. Again, these results logically flow from previous understanding of personality dispositions.

Psychoticism was significantly correlated with the Internet faking scale. The Internet faking scale explores the faking of an online identity, which may be seen as a deceptive form of usage. The disposition of higher psychoticism scorers as risk-takers has been previously linked with socially 'deviant' behaviours online (Amiel & Sargent, 2004), and so the association appears logical. However, it is interesting to note that psychoticism was not predictive of the experimentation motivation. Therefore the experimentation motivation may refer to less deceptive usage. Alternatively, it may reflect a particular frame of reference. For instance, high psychoticism scorers may be more likely to adopt a dissociative imagination (Suler, 2004) whilst on the Internet. This would imply a distancing of their offline selves from an alternative, exaggerated online self. Thus such users may view SNSs as games rather than as social environments, and therefore may not relate to the items within the experimentation motivation. Faking was not, however, associated with introversion or sociotropy as expected. Therefore hypothesis 13 was only partially supported.

Introversion and age were associated with the lurking scale. Introverts shy away from offline social interactions, and dislike offline saliency within online

interaction (see Orchard & Fullwood, 2010). Thus they may prefer lurking as it satisfies their interactional needs without having to overtly communicate. In terms of behavioural outcomes within the SNS environment, it may be predicted from this that introverts will have relatively low profile activity, in terms of updates, as their usage will be focussed on viewing content already on the site rather than creating new content. Indeed the behavioural correlations found that extraversion was positively correlated with updating one's profile picture and status, and adding photos. Furthermore, lurking in this instance may relate to only using the SNS in response to others rather than initiating use such as starting conversations. The idea needs to be further explored with more behavioural analyses. However, again the behavioural correlations with SNS features would suggest this to be the case. Extraversion was correlated with writing or commenting on the walls of others, which would suggest a willingness to initiate communication; suggesting that introverts may not do so. The association with age fits results surrounding the conformity motivation. If older users are more likely to use SNSs as a result of conformity, they may be less likely to actively participate and take more of a passive outlook. Again, correlations with SNS features seemingly support this idea. However, hypothesis 14 was only partially supported as neuroticism was not associated with lurking behaviour. Again, if the scale was viewed by participants in light of their SNS behaviour, they may be less inclined to lurk due to the offline saliency of the environment, and thus the familiarity of interaction partners.

Introversion, sociotropy and sex (males) were all correlated with the perceived personality change scale. This finding may suggest these personality types, and males especially, are able to share their 'real me' online (as described by Bargh et al., 2002). However, from the results available so far it is difficult to elaborate on

this. Such results will be considered within later phases of results. Hypothesis 15 was partially supported.

In terms of self disclosure, psychoticism and sex (males) were correlated with disclosing higher amounts of information, whilst sociotropy (negatively) and autonomy correlating with level of positive valence. For psychoticism, this may be related to the motivation of freedom of expression. The association with males does not seem to fit the previous results. Previous literature suggests that traditionally females are more likely to self-disclose higher amounts than men (Dindia & Allen, 1992). Furthermore, in the online environment Nosko et al. (2010) found no differences in self disclosure between the sexes. The unique CMC environment promotes high levels of self disclosure compared to offline socialisation (Joinson, 2001). Men may therefore be encouraged to disclose more in online contexts compared to offline contexts. Thus, perhaps this finding relates to a perception of increased disclosure rather than an actual difference between genders. This idea fits in with a study by Fullwood, Morris and Evans (2011) claiming a linguistic androgyny within MySpace profiles. Whereas traditionally men tend to be more guarded, they may perceive such open communication as an extreme shift to their communication style. Indeed, this may contribute to explaining the reported perceived personality change in males as reported above. Sociotropy's negative correlation with the disclosure of positive information may reflect a potential feedback mechanism used by higher scorers to increase communication with others. For instance, it may be that higher scorers are more likely to endorse self deprecating status updates in order to gauge feedback from others to satisfy their need for positive feedback. Indeed, Harbaugh and To (2008) argue that individuals employ 'false modesty' to avoid the negative effects of

promoting good news. Furthermore, statistics suggest that negative Facebook statuses receive more comments (Rosecrans, 2011). The same is true for low autonomy scorers who will rely more on the feedback of others than high scorers, who feed more on self satisfaction. Hypothesis 16 was partially supported.

4.4.1 LIMITATIONS

Although the research draws together logical and psychologically sound conclusions, it does not coincide completely with previous literature. Whilst personality is hard to compare due to a lack of literature, studies looking at age and sex within SNS gratifications only partially supported the ideas found. For instance although Joinson's (2008) ideas were mostly supported, Park et al. (2009) found a link between females and informational gratifications, which did not transpire, whilst the results of Raacke and Bonds-Raacke (2008) were only partially supported. Such differences however, are considered minor and may exist due to differences in methodology or specificity of the SNSs studied. The current study did not restrict or specify particular SNSs when recruiting participants. Questions pertain to any SNS participants use for social purposes. However, it was found that most users completed the questionnaire in relation to their Facebook use. Due to this further analysis within this thesis decided to focus purely on Facebook use in an attempt to draw more specific results by reducing differences that may occur between site usage.

In terms of analysis, the directionality of cause and effect is cautioned due to the correlational analyses used in some instances. Also it should be noted that the use of stepwise regression is often criticised within the statistical domain for its lack of theoretical orientation. Furthermore, the reliability of scales is cautioned as outlined in the Methods section. Moreover, the low effect sizes of results should be

noted. The results do not imply that personality will always determine behaviour, but rather that personality may predispose users to particular motivations or behaviours which may then affect use. The use of self report methods will also draw criticism around areas of reliability and validity; particularly for single-item measurements. Although these items have face validity, later aspects of the thesis will aim to validate such ideas further.

It is also worth noting that the results from the factor analysis were restricted by the items included. A strict method of analysis was used to optimise interpretation of results. Thus individual items dropped from analysis were not necessarily inappropriate for the study of SNSs. Also, items included were of a generalised manner, and only included theoretical gratifications rather than specific uses of SNSs. This was to avoid a crossover of ideas within the factor analysis, particularly as uses were explored in terms of frequency in a separate question. However, more specific items relating to specific uses as opposed to gratifications would have altered the factor structure, and uncovered some of the more content based gratifications as found in some previous studies (e.g. Raacke & Bonds-Raacke, 2008). This is not in essence a criticism, but rather an alternative method of inquiry. Furthermore, despite extensively searching previous uses and gratification literature, it cannot be guaranteed that all motivations for using SNSs were considered. This is apparent when considering the changes in SNSs since data collection. For instance, as it progresses Facebook is becoming more embedded into an environment of nostalgia. As all communication, photo updates and status updates are saved indefinitely, it has started to take on the functions of an online diary, with a visual dated backlog of personal events and interactions. This has become more apparent with the newly added “timeline” structure and “memorable

status” function (whereby Facebook prompts users with a selection of statuses from their friends’ past updates). Thus, items relating to the retention of social memories may have created a further factor if included. This idea stipulates the importance of increasing and repeating research in an environment with such a high rate of development. Furthermore, these ideas may explain minor differences between current results and previous literature. Again, however, it is emphasised that the aim of the study was not to create a perfect motivational structure of potential gratifications, but rather explore differences between these gratifications in terms of personality.

4.4.2 CONCLUSION

The results of this study imply that differing personalities may interact differently with SNSs. These differences appear to stem from dispositional differences which appear to affect motivational reasons behind SNS usage. It is hypothesised that further research may find personality differences in more specific SNS behaviours. For instance, psychoticism predicted the motivation of “free expression”; perhaps this is reflected in the way high-scorers construct their profile. For instance, they may be more willing to discuss “taboo” subjects or include more swearing. The idea of gratifications and needs translating into behaviour has already been highlighted by Park et al. (2009), when it was found that those seeking information through participation within Facebook groups were more likely to engage within civic activities. Therefore, phase two of the research aims to look at the behavioural aspect of SNS usage and profile construction as a method of validation and further research.

CHAPTER FIVE: CONTENT ANALYSIS OF PROFILE USE (PHASE 2)

5.1 INTRODUCTION

The previous chapter focused on multiple SNSs, due to previous research emphasising the importance of exploring multiple websites (e.g. Hargittai & Hsieh, 2010). However, research has yet to focus on user interactions with specific elements of SNS features. SNSs are heterogeneous in their feature content, thus future studies may benefit from concentrating on a single site. Due to the higher number of Facebook users referred to in the findings of the previous chapter and the increasing popularity of the site, the rest of the thesis will focus purely on Facebook. Facebook is the UK's most commonly used SNS, and therefore research on the site reflects current trends in social networking. Furthermore, the fixed formatting of Facebook profiles holds practical advantages, as it is easier to compare users across profiles (Buffardi & Campbell, 2008).

Personality has already been linked to individual online behaviours. Indeed, research has found that personality can influence behaviours within Internet applications. Tuten and Bosnjak (2001) for instance, have suggested that extraverts may be more likely to jump between websites, whilst introverts stay on the same site for longer. Furthermore, through an online forum analysis Maldonado et al., (2001) found that introverts tended to post richer messages, longer than those from their extrovert counterparts. The current chapter explores the specifics of Facebook use. More explicitly it will focus on differences between users in their profile set-up, which will be explored in association with personality.

5.1.2 PREVIOUS LITERATURE

There is a wealth of literature exploring both offline and online self presentational differences. Goffman's (1959) dramaturgical perspective stipulates that individuals present a 'front', not as a step in deception, but rather as a self presentational strategy in order to create a positive impression to the world. Research suggests that enhanced control within the CMC environment may elicit more strategic self-presentational strategies (Ellison, Heino & Gibbs, 2006). Personality may affect willingness or motivation to manipulate such strategies. This is particularly important as Facebook profiles are the hub of all social activity within the site; thus allowing insight into further behaviours.

To date there are only a handful of studies explicitly exploring personality differences and the intricacies of Facebook use, such as interaction with specific features. Buffardi and Campbell (2008) was perhaps the first to study this issue. The authors explored narcissism, by combining self-report methods with a content analysis of user profiles (both objective (such as number of friends, wall posts, etc.) and subjective (such as presence of self-promoting information)). Higher scorers were found to be more self-promoting (e.g. in their about me section and through their profile picture). They were also found to partake in a higher number of interactions. The authors also explored impression ratings of users. Results found that narcissism could be accurately judged from profile viewing, suggesting explicit differences in profile set-up.

Ross et al. (2009) used self-report measures in combination with content analysis techniques to explore how personality and computer competency affected communicative feature use within Facebook. The study was based on a Canadian student sample (n=97). Participants were asked to complete a 28-item

questionnaire covering various aspects of usage: frequency of feature use, attitude towards Facebook, and personal disclosure (labelled as personality-identifying information). Personality was measured via the NEO-PI-R (the five-factor model). However, personality scores were segregated into thirds, so that high and low scorers were compared rather than presented on a continuum. Results highlighted only a small amount of significant findings corresponding to extraversion and neuroticism. High extraversion scorers belonged to more groups than low scorers. Furthermore, high neuroticism scorers held a preference for Facebook 'wall' communication, whilst low scorers preferred posting photographs. In terms of the attitude component, openness to experience predicted greater sociability function use, but this did not translate into behaviour. Many expected hypotheses did not hold true. For instance extraversion was not related to number of friends or frequency of use. Furthermore, analyses exploring the additional five-factor model variables were non-significant. The paper concludes that extraverts seemingly use Facebook as an additional social tool, whilst high neuroticism scorers show a tendency towards information control.

Amichai-Hamburger and Vinitzky (2010) build on Ross et al.'s (2009) study by challenging potential inaccuracies due to the self-report measures used. A larger scale study (n= 237) of Israeli students was conducted. Instead of self-report methodology, objective criteria via content analysis were used to explore differences in use. Participants completed a self-report measure of personality (the NEO-PI-R), whilst their Facebook profile was coded by external researchers, based on a previous codebook designed by Zhao et al., (2008). Compared to Ross et al., the scope of the research was much broader, covering each of the key information prompts found on the Facebook profile. The changes to the methodology of the

study resulted in a stronger association with personality. Extraversion and high conscientiousness were associated with a higher number of friends. Whilst it is logical to assume extraverts will hold more friends due to their sociable nature, high conscientiousness scorers may seek a high number of friends as a way of using the site in an optimum manner. Higher openness scorers revealed more personal information, which was explained as a need for expression. Yet high extraversion scorers revealed less. This was explained through an extravert reliance of owning pre-existing social skills, suggesting that introverts will include more information to promote themselves. High neuroticism scorers shared more photos, whilst both high and low neuroticism scorers divulged more information than middle scorers. It may be that these high scorers are seeking social support through disclosure, whilst low scorers are comfortable to express themselves as a motivation of self-actualisation. Similarly, high and low agreeableness scorers uploaded more photos than middle scorers. Yet, high agreeableness scorers tended to use less of the available features, whilst female low agreeableness scorers had fewer photos than higher scorers. The latter results did not fit the authors' hypothesis, and as such further research was recommended. Some of these results are strongly contradictory to those of Ross et al. (2009); however, the authors argue that using an objective measure of behaviour is a more accurate gauge of personality.

More recently, Gosling et al. (2011) have used both self-report methods and content analysis to explore personality in association with profile interaction. Using the TIPI to measure the Big Five, 133 participants were asked to provide access to their profile for content analysis coding and unacquainted observer ratings. From the observer ratings, extraversion was most visually evident, and

most easily detected (0.79), followed by conscientiousness (0.67), openness (0.60), agreeableness (0.47) and neuroticism (0.32). Such results highlight that strong differences should be evident between extraverts and introverts in terms of profile set-up, whilst low and high neuroticism scorers may only show subtle differences. The content analysis study, however, only found a relationship between extraversion and number of friends (both overall and in their local network), and openness and number of friends and networks joined. The authors argue that personality differences in motivations may not visibly show in terms of behaviour. However, as with Ross et al. (2009) the scope of the content analysis was limited (for example, all looked at the frequency of items – such as number of photos, groups, etc), and as such significant findings may rely on exploring deeper profile interaction.

Despite the above studies offering an in-depth and insightful view of the role of personality within a SNS environment, further analysis is still warranted.

Disagreements in previous studies suggest that further exploration is needed. Such differences may be attributed in part to cultural differences. Indeed, Zhao and Jiang (2011) found self-presentational differences between SNS users of differing cultures. Previous research has yet to focus on a UK sample. Furthermore, all of these studies focus on the five-factor model of personality. The current thesis has provided theoretical evidence for the exploration of the three-factor model and sociotropy and autonomy. Further research with differing variables is particularly emphasized as aspects of the five-factor model appear to hold relatively low impact on Facebook behavior; although it can be seen that results vary dependent on methodology. Moreover, the analyses of these studies followed a set of pre-meditated predictions rather than a large scale exploratory study. The current

thesis links features of Facebook with personality generally to explore any unpredicted results. Finally, the criteria in which associations take place are in some instances more simplistic than the current thesis. For instance, rather than exploring whether participants use a particular feature, this chapter additionally explores type of content, such as types and depth of self disclosure. The current study combines the above attempts by exploring both objective criteria and user perceptions of their profile information.

5.1.3 CONTENT ANALYSIS

The above studies have relied in various extents upon content analysis. Such methodology will be used in the current chapter. Content analysis is defined as a methodology made of varying techniques, which allow the researcher to systematically explore message characteristics (Neuendorf, 2002), in an inferential, valid and reliable manner (Krippendorff, 2004). Data is collected from a given source (in the current example, through Facebook profiles) and coded for further analysis based on a 'codebook' designed specifically for the research question at hand. Essentially data is coded into a reduced form to ease interpretation. Thus a codebook may be defined as a stringent set of guidelines allowing categorisation of particular occurrences. Within the current study a priori content analysis is used; whereby the codebook and coding structure were designed prior to data collection. Although content analysis can be computer based, human coders were used within the current analysis.

Perhaps the main advantage of content analysis is its flexibility (Cavanagh, 1997) to be used irrespective of study context. Furthermore, it is systematic in its approach. However, the analysis may be criticised for its reliance on researcher judgement. Indeed, analysis can only reflect the strength of the codebook. With this

in mind, reliability of data analysis holds extreme importance (Neuendorf, 2002). When human coding is used, it is standard to ensure coders hold high intercoder-reliability (Neuendorf, 2002). When completed successfully, content analysis is a powerful technique that allows the researcher to explore trends within their chosen medium (Stemler, 2001).

5.1.4 AIMS AND HYPOTHESES

This chapter of the thesis explores whether differing personality types interact with Facebook differently. This phase of research focuses on two specific aims: 1) To validate and extend findings from the previous chapter using a self-report questionnaire to explore sub-motivations derived from motivational factors extracted. Results are expected to fall in line with the previous chapter; 2) To explore how personality types differ in their Facebook usage through a specific examination of self-presentation style. This analysis will focus on profile layout, profile content and privacy settings. Although majority of the analysis is exploratory, several tentative hypotheses can be made based on pre-existing knowledge of personality dispositions, the results of Amichai-Hamburger and Vinitzky (2010), and Ross et al. (2009), and the structure of the content analysis codebook created.

1. Extraverts will have a higher number of friends, due to their sociable nature. Following on from phase one, they will also hold more photo albums and be associated with a higher number of groups. 2. Psychoticism, which was previously associated with freer expression and newer connections, will be associated with the inclusion of offensive language, a larger word count in terms of information divulged and a subscription to more offensive groups. 3. High scorers of neuroticism will be less likely to address the reader directly given their preference

for one-sided communication. 4. Sociotropic users will be more likely to divulge more information and more likely to address the reader to complement their motivation for information exchange. They will also be more more likely to include self depreciating information as a method of attracting attention. 5. Autonomic users will divulge less as they prefer solo activities as opposed to social interactions.

5.2 METHOD

The second phase of research aims to focus on questions surrounding *how* differing personalities use and engage with Facebook. The current methodology builds on previous studies by Amichai-Hamburger and Vinitzky (2010), and Ross et al. (2009) and utilises a content analysis approach. However, to build upon these previous studies participants will be asked to comment on aspects of their profile, which cannot be measured objectively without personal information. Thus participants are essentially asked to capture their own data to be analysed through using a computerised self-report questionnaire. In some instances this means that the participants themselves are coding aspects of their own profile. In addition to the content analysis, the study also employs a questionnaire focusing on the motivations highlighted from the first study. It is hoped that this information could validate initial findings and clarify uncertainties within results.

An initial pilot study was undertaken, looking at MySpace in a similar manner. MySpace was originally sought for the research due to its higher level of creativity within profile creation. For instance, MySpace allows users to customise the physical background of their music, and re-arrange sections of their profile. However, it became evident that the popularity of Facebook over MySpace within

the study's sample would hinder participation levels. Furthermore, this popularity justified an explicit focus on Facebook and thus a Facebook equivalent to the study was created. The eight responses collected from the MySpace study were considered as pilot data to test their usability of the electronic questionnaire.

During data collection of the current study, Facebook underwent major changes in its design, which impacted on the results of the study in two key ways. First, the change moved towards more standardised profiles, with adaptation to the user's "info" tab. It appears that Facebook has adapted a more community based outlook, by categorising and summarising previous information within this tab within shared links, which are then brought together by a Wikipedia entry explaining the link. For instance, if the user had previously joined a group in support of a particular author, that author would now appear under the heading "favourite books", and when clicked upon would link to others with this information on their page, and the Wikipedia entry linked to this author. Second, the change impacted upon user privacy settings, which were modified in style and wording to match the changes within the profile. The changes did not occur unanimously at one point in time. Rather users were given the option to 'opt-in' to the new Facebook, and did so gradually. However, once the changes had been implemented on a user's profile, the user could not switch back to their older settings.

A large part of the study aimed to explore the manner in which users represented themselves through words and pictures included on their profile. However, a large element of this creativity was removed by the changes, which ultimately impacted significantly upon the design of the studies questionnaires and procedure. The computerised questionnaire and planned content analysis codebook therefore had to be modified mid-study. At this time, there was not a large enough sample to

consider ending the study earlier. Thus in an attempt to increase participation to a possible maximum before a full changeover of Facebook's proposed changes occurred and any future changes were further implemented, the study was modified into an online questionnaire format. However, as many participants were unaware of whether their profile had been updated, the online version of the questionnaire was modified in an attempt to collect data from those with both the newer and older versions of Facebook. Despite quick distribution of the online survey, the unfortunate timing of this change ultimately impacts on data quality and accuracy of responses when comparing participants.

5.2.1 PARTICIPANTS

Participants were sought in both an online and offline manner. Excluding the pilot study, 87 participants (75.9% females; 23% males; 1.1% undisclosed) completed the study. Of these, 44 participated in an offline manner (84.1% females; 15.9% males); whilst 43 participated online (67.4% females; 32.6% males). Overall participant ages ranged between 18 and 55 (5.7% undisclosed; *Mdn* age = 24.5 years). For the offline group the range was 18 to 52 (*Mdn* age = 20 years), whilst the online group ranged from 20 to 55 (*Mdn* age = 26 years). The age difference was significant between groups ($U=326$, $z=-4.793$, $p<.001$).

Participants taking part in the offline version of the study were recruited through advertisement within The University of Wolverhampton; more specifically, through the use of mass email advertising, and the psychology department's participant pool database. Students taking part in the study were offered course credit in exchange for their participation; however, student status was not a requirement of participation. The online version of the study was advertised through mass email advertising outside of the university, on Facebook, and

through the Association of Internet Researchers listserve. Biases of advertising through an academic listserve are noted. However, it is thought that this particular listserve would produce a large and quick response rate and would be able to recruit using a snowballing method.

5.2.2 MATERIALS

5.2.2.1 CONTENT ANALYSIS QUESTIONNAIRE

The content analysis questionnaire consisted of three sub-sections, which will be discussed in turn. To avoid repetition, individual questions will be discussed in detail in the results section.

Profile Layout

This section of the questionnaire focussed on the 'front page' of user profiles. Questions were asked about the users' profile picture, information held in the 'left-hand box' of their profile (i.e. constantly visible information) and their wall behaviour. Questions differed in format, and included selecting from a category of answers (e.g. yes/no/unsure) and text boxes (e.g. where participants were asked to copy and paste their status for instance). Although consistency would have been preferred, to acquire the range of information requested this was not feasible.

Profile Content

This section of the questionnaire focussed on the 'Info' tab of a user's profile. This section of the profile arguably holds the most access to profile individuality, with users choosing the content and amount of disclosure within each of Facebook's standardised prompts. As discussed above, the independent nature of this section became compromised during Facebook updates during April/May 2010.

Participants were asked to copy and paste their profile into this section. To protect

confidentiality and anonymity prompts revealing sensitive or personal answers only required a 'tick' to signify inclusion. However, participants were free to censor any other information they did not want to share with stars (e.g. ***).

The previous section of the questionnaire was self-coded by participants within the set-up of the self-report measures. However, this section required external subjective coding. Although all coding was completed by the same researcher, a second was asked to code approximately 30% (26) of the sample in order to calculate an inter-reliability rating. For continuous variables (i.e. number of items), Pearson correlations were calculated to measure the association between rater scores. All pairings were significant with a coefficient above .9. For categorical variables, Cohen's Kappa was used. Agreement levels should aim to fall above 0.60 to be accepted as a reliable analysis (Landis & Koch, 1977). Inter-reliability between ratings of categories fell slightly short of this and was found to range between .51 and .76. Further training or revision to certain aspects of the codebook should be undertaken if replicating this research. However, as only one coder was used to code the current data set, it is argued that such coding is consistent. Specific details of the codebook can be found below.

Privacy Settings

This section of the questionnaire essentially asked users to note their privacy settings. However, it is thought that differing personalities may feel differently about what they are happy to disclose and to whom. As with the first section of this questionnaire, participant answers served as a self-categorisation so external coding was not needed.

5.2.2.2 CODEBOOK (SEE APPENDIX 11.3.2/11.3.3)

Questionnaire responses were coded by the researcher with the use of a codebook created for the study. Inspiration was taken from Neuendorf's (2001) and Krippendorff's (2004) suggestions regarding the process of content analysis. The codebook was used in conjunction with the 'Profile Content' section of the questionnaire, due to the openness for creativity and individuality under this section. Facebook provides users with certain 'prompts' to encourage disclosure within the individual's profile. Answers to these prompts were analysed to explore differences in given disclosures. This part of the coding scheme was largely inspired by Papacharissi's (2006) pre-existing coding scheme for blog content analysis, which covers 3 aspects of content (Structure – e.g. extensiveness (word count); Design – e.g. vividness (presence of graphics), and interactivity (presence of invited feedback/ addressing the reader); and Content – e.g. formality of language and level of humour).

The user's headline, current status, favourite quote and biography (referred to in the codebook as 'Set of Prompts 1') were coded in terms of total word count for each (as given by the Microsoft Word 'Word Count' feature). The status alone was also coded for grammatical convention. At the time of data collection Facebook status updates would start with the user's name followed by their status presented as a sentence. As an observation it was noted that some users followed this convention by writing in a somewhat third-person perspective (e.g. '*NAME is doing...*'), whilst others ignored this grammatical format (e.g. '*NAME Doing...*'). Statuses were coded 0 or 1 respectively. All "Favourite" prompts (i.e. Favourite Activities, Interests, Music, TV, Films and Books – referred to within the codebook as 'Set of Prompts 2') were coded in terms of number of distinct items within each prompt. This was thought to be a more adequate measure of the amount of

disclosures over total word count. For instance, users may still have a high word count even if disclosing just one favourite item, thus skewing results. To take this into account, prompts were also coded on their level of added description. Thus users who purely listed their favourite items (across all prompts) were coded '0', whereas those who added any additional details or comments were coded '1'. For these prompts users were also coded on their level of specificity. Those who listed mainly specific items were coded '1'; whilst those who were more general, listing genres or generic descriptions were coded '0'. As an example, a user who had listed their favourite TV shows as "*Eastenders, Family Guy and anything funny*" would be coded 1 (as items are mainly specific), whilst a user writing "*comedy and dramas*" would be coded 0 as these are less specific.

Based on both prompt sets above, users were coded on several aspects of their disclosures across items with the categories '0' (None) or '1' (Present). Prompts were coded for the inclusion of 'visual imagery' (evidence of pictorial elements such as the inclusion of any images, emoticons or repetitive use of punctuation), 'addressing the reader' (evidence of feedback invitations, rhetorical questioning, or using the word "you" in reference to the person reading the content), 'offensive language' (any evidence of swearing or discussion of content which is overtly offensive), 'self-deprecation' (any evidence of overt false modesty, or negativity about self), 'self-appreciation' (any evidence of the user complimenting themselves, even in a humorous fashion), and finally 'humour' (any evidence of overt humour, including popular acronyms LOL/LMAO and laughing emoticons). Many of these definitions were taken from Papacharissi (2006). Although the coding scheme may have benefited from a larger range of coding categories (for instance 0-5 varying in terms of frequency), it was felt that the subjective nature of

such items would be particularly difficult to code, and thus a dichotomous scheme would increase reliability of the coding process. Participants were also asked about the groups they had joined (with the inclusion of 'pages' due to the Facebook update). Whilst participants gave the total number of groups/pages joined, their supplied lists of such groups were coded under three distinctions, exploring the inclusion of offensive, random and serious groups. Offensive groups were defined as those containing offensive words in the title, or of an offensive context. Random groups were described as those that do not seem to have a point and do not tell you anything about the profiler's likes or dislikes, such as "*Join if your name begins with...*". Serious groups were defined as those which support a particular cause, or are concerned about a particular issue (e.g. charities/petitions). Again, codes were dichotomous using '0' for None and '1' for Present.

Finally, Haymes' (1969, cited in Jourard, 1971) self-disclosure scoring manual, was also used to explore depth of self-disclosure. Haymes provides an in-depth scoring procedure to recognise any occurrences of emotions, self-awareness, needs or dreams which would signify a deeper level of disclosure. The scale has been adopted by several researchers to explore offline disclosure in interaction (Jourard, 1971). Although the scoring manual suggests that each of these occurrences should be coded on a scale of 0-2, a simplistic categorisation of 0-1 was used due to the subjective nature of the coding and the amount of text being coded. The manual provides examples for each occurrence. For instance, the expression of emotions can be seen within overt sentences of one stating how they feel (e.g. "it drives me crazy..."). The expression of needs is assessed by the presence of any demands (e.g. "all I want is..."). Self-awareness includes an overt discussion of one's capabilities and boundaries (e.g. "it's really bad for me when

I...”). The expression of dreams is characterised by disclosures of ambitions (e.g. “I dream of the day when...”) (Haymes, 1969). The inclusion of any of these items led to a coding of 1 being given to signify a deeper level of disclosure.

The items explored were thought to add a level of added depth to the profile analysis beyond previous research, as well as holding relevance to the findings of the previous chapter.

5.2.2.3 MOTIVATIONS AND BEHAVIOUR QUESTIONNAIRE (SEE APPENDIX 11.3.4)

The study concluded with a questionnaire looking at motivations behind Facebook usage. This was specifically created to further explore findings from phase one. As such, items were generated surrounding the summary of motivations found within the last study, and potential behavioural manifestations which may supplement these motivations. The questionnaire was made up of fifty statement items. Items were created surrounding the theoretical suggestions of the previous chapter findings. For instance, items “I use Facebook when I should really be doing something else” and “I use Facebook to avoid doing work” were included to explore the procrastination factor further. Participants were asked to rate their level of agreement to each item on a scale of 1 (Strongly disagree) to 6 (Strongly agree).

5.2.2.4 PERSONALITY

As with the previous phase of research, the EPQ-R (Eysenck & Eysenck, 1991) short form was used as a measure of extraversion, neuroticism and psychoticism; whilst Beck’s (1983) Sociotropy - Autonomy Scale (SAS) was used to measure the personality ‘modes’ of sociotropy and autonomy. Refer to chapter 3 for more information regarding these scales. Although in recent years the transferability of personality scales to an online context has been debated, research generally

suggests that established personality measures result in minimal difference between contexts (e.g. Chuah, Drasgow & Roberts, 2006; Merten & Siebert, 1997).

5.2.3 PROCEDURE

Regardless of whether participants were completing the on- or offline version of the study, both methods consisted of four segments of participation. Firstly, participants were presented with instructions and ethical information detailing what the study entailed, and were required to complete a consent form. Offline, a signature agreeing participation was sought. However, those online were required to enter their name (or pseudonym) and tick a box before proceeding. Online consent has been highly debated; however the 'tick-box' method is often agreed upon as being acceptable (O'Connor, Madge, Shaw & Wellens, 2008).

Following this participants were asked to complete the two personality questionnaires (EPQ-R and SAS). Those who completed the study offline were given the personality questionnaires in a pen-and-paper format. Online participants were guided through four pages of questions, and asked to select their answer through the use of radio-buttons.

The main questionnaire within the study aimed to capture profile data for further content analysis. In some instances, participants were required to code some of their profile themselves (e.g. Who/what is in your current profile picture?), whilst other questions involved simply copying and pasting parts of the profile for analysis by the researcher. The questionnaire was broken into three subheadings: Profile Layout, Profile Content, and Privacy Settings. For offline participants the questionnaire was created within a Microsoft Word Document, which utilised the 'forms' function to create questionnaire features such as drop down boxes and text

boxes. Online participants were given the questionnaire in the online format. To account for the amended environment and the update in Facebook, some of the questionnaire wording and layout was modified slightly to that of the Microsoft Word version. This section of the questionnaire was accompanied with further instructions to help clarify how it should be answered.

The final section of the study, involved completing a motivations questionnaire designed to validate and expand on phase one of the research. Again, offline participants completed this in a pen-and-paper format; whilst online participants progressed from the main questionnaire automatically as they worked through the online survey format.

The study took approximately 30 – 45 minutes to complete. This was much longer than that recommended for online questionnaires; however, the recruitment methods employed emphasised the importance of participation within a quick timeframe, and thus increased participation.

5.3 RESULTS

The current chapter will explore the findings of the current study. Each section of questioning will be looked at in turn, in order to clarify the type of analysis being explored. All analyses are two-tailed due to the exploratory nature of the study.

5.3.1 DATA SCREENING

Answers were screened for possible input mistakes. All answers were checked to ensure they fell within the possible range for each variable, and any explicit mistakes or strong outliers were re-checked against the original questionnaire copy. Descriptive statistics suggest violations to parametric assumptions,

particularly in terms of non-normality of variables. Kolmogorov-Smirnov tests showed violations for psychoticism and age. Therefore non-parametric tests are used unless otherwise specified.

5.3.2 PERSONALITY VARIABLES

Descriptive statistics surrounding personality variables were explored to ensure a representative sample was sought from both on- and offline recruitment. These can be found in the Table 2.1. Participants between groups significantly differed on extraversion ($U=540.5$, $z=-3.347$, $p=.001$), but no other personality variable. This follows past research, which suggests that extraverts are drawn to offline participation, whilst introverts prefer online participation (Witt et al., 2011). However, it more likely reflects a student sample bias for offline participants. Overall the spread of results mimics the previous chapter.

Table 2.1: Range and mean of personality scores of on- and offline participants

	Offline Recruitment		Online Recruitment	
	Range	Mean	Range	Mean
Extraversion	0-12	9.14	0-12	6.48
Psychoticism	0-9	2.57	0-9	2.28
Neuroticism	0-12	6.62	0-12	6.35
Sociotropy	32-107	69.02	22-102	66.80
Autonomy	46-93	67.07	40-99	65.88

5.3.3 MOTIVATIONS QUESTIONNAIRE

Each item on the motivations questionnaire was explored individually. Each personality variable (extraversion, psychoticism, neuroticism, sociotropy and autonomy) was correlated with the agreement rating for each item. Analyses are two-tailed as they are used in an exploratory manner. All significant results can be found in Table 2.2 below.

Table 2.2: SNS motivations and attitude correlations with IVs

	Psychoticism	Extraversion	Neuroticism	Sociotropy	Autonomy	Age	Gender
I use Facebook when I should really be doing something else.	.135 N=87	.129 N=86	.248* N=87	.181 N=84	.142 N=86	-.283* N=82	-.076 N=86
I use my status updates to make a statement.	.193 N=87	.213* N=86	.011 N=87	-.051 N=84	.218* N=86	-.230* N=82	.166 N=86
I am not afraid to join groups I believe in, even if I know my friends won't approve.	.221* N=87	.316** N=86	-.121 N=87	-.242* N=84	.292** N=86	-.188 N=82	.096 N=86
I check my friends' profiles to make sure mine is similar.	.081 N=86	-.046 N=85	.393** N=86	.339** N=83	-.018 N=85	-.310** N=81	-.171 N=85
I am conscious of what I write in case I offend other people.	-.377** N=87	-.123 N=86	.183 N=87	.512** N=84	-.116 N=86	.083 N=82	-.177 N=86
I have posted something sarcastic or offensive on a group or fan page.	.167 N=86	.147 N=85	-.008 N=86	-.088 N=83	.171 N=85	-.161 N=81	.276* N=85
I like to fill in all of the information prompts so my profile says a lot about me.	.086 N=87	.235* N=86	-.007 N=87	.096 N=84	.033 N=86	-.112 N=82	.024 N=86
I tend to "like" things my other friends have "liked" even if I don't really have an opinion on it.	.145 N=87	-.050 N=86	.141 N=87	.182 N=84	.112 N=86	-.259* N=82	.015 N=86
I use Facebook to avoid doing work.	.036 N=87	-.053 N=86	.307** N=87	.254* N=84	.217* N=86	-.245* N=82	-.138 N=86

Table 2.2: SNS motivations and attitude correlations with IVs

	Psychoticism	Extraversion	Neuroticism	Sociotropy	Autonomy	Age	Gender
My status updates allow me to voice my opinion.	.135 N=86	.250* N=85	-.202 N=86	-.174 N=83	.171 N=85	-.159 N=81	.165 N=85
I tend to join groups/pages that my friends have already joined.	.180 N=87	-.070 N=86	.000 N=87	.067 N=84	-.044 N=86	-.336** N=82	-.029 N=86
My status updates show my individuality.	.093 N=87	.101 N=86	.011 N=87	-.082 N=84	.264* N=86	-.160 N=82	-.079 N=86
I regularly change my likes (e.g. books, films) to keep my profile updated	.068 N=87	.147 N=86	-.044 N=87	-.067 N=84	.097 N=86	-.237* N=82	.057 N=86
I make sure I tag all my photos with the correct people.	-.071 N=87	.014 N=86	.033 N=87	.176 N=84	-.013 N=86	-.278* N=82	-.197 N=86
Once I join a group I never really look at it again.	.118 N=87	.098 N=86	.132 N=87	.184 N=84	.095 N=86	-.309** N=82	-.170 N=86
I don't mind if strangers see my profile.	.174 N=86	.170 N=85	-.103 N=86	.153 N=83	-.148 N=85	.035 N=81	.228* N=85
I always keep a webpage open with Facebook on when I'm online; even when I am doing something else.	.137 N=87	.028 N=86	-.075 N=87	.155 N=84	.117 N=86	-.363** N=82	-.034 N=86
I make more friend requests than I receive.	-.136 N=87	-.299** N=86	-.036 N=87	.042 N=84	-.014 N=86	-.066 N=82	.074 N=86
I get addicted to application games, such as Farmville.	-.110 N=86	-.026 N=85	.196 N=86	.196 N=83	-.008 N=85	-.275* N=81	-.207 N=85

Table 2.2: SNS motivations and attitude correlations with IVs

	Psychoticism	Extraversion	Neuroticism	Sociotropy	Autonomy	Age	Gender
I log on to Facebook when I think my friends will be on.	.007 N=87	.125 N=86	.213* N=87	.207 N=84	-.014 N=86	-.351** N=82	-.137 N=86
I add people I don't particularly like just to get more friends.	-.244* N=87	-.153 N=86	-.008 N=87	.259* N=84	-.145 N=86	.095 N=82	-.143 N=86
I put a lot of thought into my Facebook use as I want to give off the right impression.	-.211 N=87	-.204 N=86	-.016 N=87	.277* N=84	.013 N=86	.066 N=82	-.088 N=86
I like it when I am tagged in other people's photos.	.176 N=87	.253* N=86	-.203 N=87	.054 N=84	-.165 N=86	-.280* N=82	.025 N=86
I only choose profile pictures that make me look good.	-.002 N=87	.128 N=86	.180 N=87	.210 N=84	.131 N=86	-.256* N=82	-.176 N=86
I spend more time looking at or updating my own profile, than I do looking at or contributing to other people's profiles.	.074 N=87	.001 N=86	.003 N=87	-.046 N=84	.198 N=86	-.271* N=82	-.075 N=86
I like applications where you play with or compete against other people.	.118 N=86	.144 N=85	-.052 N=86	.036 N=83	.089 N=85	-.344** N=81	-.067 N=85
I would feel bad or guilty if I declined or ignored a friend request from someone I didn't know	-.031 N=87	-.082 N=86	.125 N=87	.276* N=84	.055 N=86	-.090 N=82	-.023 N=86

Table 2.2: SNS motivations and attitude correlations with IVs

	Psychoticism	Extraversion	Neuroticism	Sociotropy	Autonomy	Age	Gender
I enjoy adding Applications to my profile.	.161 N=87	.023 N=86	-.079 N=87	.019 N=84	.075 N=86	-.259* N=82	-.170 N=86
I use Facebook's chat facility.	.252* N=87	.147 N=86	-.023 N=87	-.024 N=84	-.011 N=86	-.254* N=82	.023 N=86
I like applications that allow you to send and collect gifts with friends.	.013 N=87	.059 N=86	.123 N=87	-.034 N=84	.098 N=86	-.226* N=82	-.063 N=86
I go on Facebook the same time every day.	.066 N=87	-.274* N=86	.052 N=87	.134 N=84	-.014 N=86	.059 N=82	.049 N=86
I don't tend to write much on Facebook – I mainly just read what other people are saying.	.080 N=86	-.295** N=85	.064 N=86	.079 N=83	-.055 N=85	-.043 N=81	.092 N=85
I would feel bad or guilty if I declined or ignored a friend request from someone I know – even if I don't particularly like them.	-.225* N=84	-.116 N=85	.150 N=86	.168 N=83	.149 N=85	.090 N=81	-.272* N=85

****.** $p < 0.01$ (two-tailed)

*****. $p < 0.05$ (two-tailed)

\$. Due to the nominal nature of sex, figures are based on point-biserial correlations. All other correlations use Spearman's rho.

5.3.4 PROFILE LAYOUT

Participants were asked to classify their own profile picture under nine possible categories, surrounding the presence of their self and others within the photo.

Categories were as followed: 0: I have not got a profile picture; 1: Just me – no one else; 2: Me with my partner; 3: Me with my friends and/or family (may include partner as well); 4: Friends/Family without me (may include partner as well); 5: Other representation of myself (for instance, cartoon picture or body part); 6: Famous person/people; 7: No people (for instance, picture of a landscape, pet or object); 8: Other. These were chosen by tentatively exploring profiles before the study. An ‘other’ category was included under the suggestion of Neuendorf (2002) to ensure all profiles could be coded. Participants were asked to explain their profile picture if they selected this category. On exploration of answers within the ‘other’ category, it was found that all could fit into other existing categorisations, and as such were re-coded by the researcher. Two category choices were unused by participants (4 and 6), and as such six categories were retained. As category 5 held a low frequency count (less than 5) those with a picture were re-coded into three generalised categories (Just me (category 1), Me with others (combined categories 2 and 3), and Other (combined categories 5 and 7)). Descriptive statistics of results after this recoding can be seen in Table 2.3. A Kruskal-Wallis test was performed to explore differences in personality scores and age between the three new categories. Furthermore, sex was explored using χ^2 . No significant differences were found.

Table 2.3: Percentage of participants with a profile picture within each category*

Just Me	52.9%
Me with others	32.9%
Other	14.1%
*N=85	

Participants were asked to categorise their previous profile pictures using the category they use most (using the same categorisations as above). Those who

selected multiple categories were disregarded. Five participants selected the category 'other', but again these could be easily recoded into existing groupings (with one multiple coding disregarded). Categories were re-coded as above. Table 2.4 shows a breakdown of classifications. Following Kruskal-Wallis and χ^2 testing, no significant differences were found.

Table 2.4: Percentage of participants who usually use a profile picture under each category*

Just Me	59.2%
Me with others	32.9%
Other	7.9%
*N=76	

Participants were also asked to comment on whether they tend to pose for their profile picture. Originally, 4 categories were given (0: Not applicable/ Never had a profile picture; 1: No; 2: Yes, I have done this but not always; 3: Yes, I always use posed photos). Again, due to low frequency counts answers were re-coded between two categories: No or At least sometimes. Mann-Whitney U tests suggested no significant differences in personality between categories. χ^2 testing suggested no significance of sex.

Number of tagged pictures, number of Facebook friends, number of photo albums and number of videos were correlated against the personality variables and age using Spearman's Rho. Sex was also correlated using point-biserial correlations. Autonomy negatively correlated with the number of tagged pictures (Rho= -.304, n=86, p=.004). Both age (Rho= -.256, n=81, p=.021) and extraversion (Rho= .328, n=85, p=.002) correlated with number of Facebook friends. Therefore, those higher in extraversion and younger users tend to have more friends. Neither number of photo albums nor number of videos significantly correlated with any of

the variables. Mann Whitney U testing found no significant difference between the sexes for any of the variables.

The visual set-up of profiles was also explored. Participants were asked to identify whether they had six, nine or 12 friends displayed on their Facebook profile.

93.1% (81) had six friends showing (default setting), whilst 4.6% (4) had 9, and 2.3% (2) had 12. Due to the low sample size in the latter categories no inferential statistics were carried out. Participants were also asked whether they had set up their profile to display certain friends at all times. Participants were offered four categories: Yes (3.4%), No, but didn't know I could – I will in the future (12.6%), No, but didn't know I could – I still won't though (74.7%), No, but already knew I could if I wanted (9.2%). Again, due to small groupings, categories were re-coded (the first two and latter two responses). Age was found to significantly differ between groups ($U=304.5$, $Z=-2.124$, $p=.034$). Those who had not or reportedly would not specify which Friends are shown on their profile were older ($Mdn = 25$) than those that had or reportedly would ($Mdn = 19.5$). The total number of items shown in the user's profile side-box (information constantly on show rather than having to click on the 'information' tab) was correlated against the variables, but no significant association was found.

Participants were asked whether they tended to remove things off their wall. Kruskal-Wallis was used to look for differences between response categories (Yes, Sometimes, and No), but no significant results were found. The categories for yes and sometimes were merged. A Mann-Witney U test between these two new categories (No/At least sometimes) found a significant difference for neuroticism ($U=573.5$, $Z=-2.320$, $p=.020$), with higher scorers more likely to remove things ($Mdn = 5$ and 7). χ^2 testing found no significant differences between sexes.

Participants were questioned about their 'liking' behaviours. Mann-Whitney U tests identified that those tending to 'like' comments on their wall were younger ($U=266$, $Z=-4.145$, $p<.001$; $Mdn = 29.5$ and 20.5). However, no difference was found when asked whether they liked their own content, or content on others' walls.

Finally user statuses were coded as either following grammatical convention (i.e. writing in third person: *Joe B is doing this today*) or not (i.e. ignoring Facebook status structure: *Joe B I think I'll do this today*). No significant results were found.

5.3.5 PROFILE CONTENT

Facebook allows profile construction through answering of pre-defined categories of information. The inclusion of each type of information was explored to investigate whether personality age or sex differed between those who included such information, and those who did not. Results were mixed; although age seemed to dominate significant findings. Younger users were more likely to include their birthday ($U=222.5$, $Z=-1.958$, $p=.050$; $Mdn = 23.5$ and 25), family members ($U=471$, $Z=-2.900$, $p=.004$; $Mdn = 19.5$ and 25), relationship status ($U=417.5$, $Z=-2.551$, $p=.011$; $Mdn = 22.5$ and 25), 'interested in' ($U=476$, $Z=-3.096$, $p=.002$; $Mdn = 20$ and 25), 'looking for' ($U=524$, $Z=-2.383$, $p=.017$; $Mdn = 20$ and 25), and a bio ($U=456$, $Z=-2.060$, $p=.039$; $Mdn = 20.5$ and 25) on their profile than older users. Yet in contrast older users were more likely to include their website ($U=305$, $Z=-2.623$, $p=.009$; $Mdn = 28.5$ and 24), employer ($U=424.5$, $Z=-3.040$, $p=.002$; $Mdn = 28.5$ and 22) and job position ($U=381.5$, $Z=-2.766$, $p=.006$; $Mdn = 28$ and 22). Those higher in extraversion were more likely to include their relationship status ($U=468.5$, $Z=-2.523$, $p=.012$; $Mdn = 9$ and 6), and IM details ($U=287$, $Z=-2.822$, $p=.005$; $Mdn = 10$ and 7) on their profile than those lower in extraversion. Those lower in autonomy completed the 'interested in' ($U=476$, $Z=-$

3.096, $p=.002$; $Mdn = 63$ and 70), and employer ($U=381.5$, $Z=-2.766$, $p=.006$; $Mdn = 28$ and 22) sections in their profile more frequently compared to higher scorers. Yet those who completed the favourite music ($U=627.5$, $Z=-2.416$, $p=.016$; $Mdn = 71.5$ and 65), TV ($U=632.5$, $Z=-2.221$, $p=.026$; $Mdn = 71.5$ and 65), films ($U=605.5$, $Z=-2.115$, $p=.034$; $Mdn = 72$ and 65), and books ($U=500$, $Z=-2.673$, $p=.008$; $Mdn = 72$ and 65) sections were higher in autonomy than those who skipped the prompt. Those higher in sociotropy were more likely to include their email on their profile ($U=141.5$, $Z=-2.072$, $p=.038$; $Mdn = 69$ and 53) compared to lower scorers. Finally, to explore sex, a series of χ^2 tests were conducted. A significant result was found for the inclusion of birthday, but as 25% of cells had an expected frequency less than 5, Fisher's Exact probability was used, giving $p=.048$ with Cramer's V of .230. Both sexes were more likely to include birthday information, than not to include it (92.4% of women, compared to 75% of men). No significant differences were found for the inclusion of gender, hometown, mobile number, town, neighbourhood, university name, course, secondary school, preferred activities, preferred interests, favourite quotes, a headline or current status.

Further analysis was completed on the most salient information within the profile. Correlations were made between the explored variables with number of words in headline, number of words in current status, number of words under the 'favourite quote' prompt, and number of words under the 'bio' section. However, no significant results were found. For the favourite activities, interests, music, TV, films and books prompts, number of items included was correlated against the personality, sex and age variables. Mixed results were found. Psychoticism was significantly correlated with the number of activities listed ($Rho= -.472$, $p=.036$, $N=20$), with those lower in psychoticism listing more activities. Age was associated

with number of listed films ($Rho = .386$, $p = .042$, $N = 28$), with older users listing more films. Finally, sex was correlated with number of TV items listed ($r = .337$, $p = .044$, $N = 36$), with men listing more than women. Interests, music and books were not significantly correlated to any variable. All these prompts were also rated on average level of specificity (specific/ non-specific – refer to coding scheme). No significant differences were found between users with specific information and users detailing non-specific information.

Looking specifically at the above prompts in addition to the user's status, headline, bio information and favourite quotes, a coding book was used to categorise the inclusion of certain elements. Those who included pictorial elements to their profile (such as emoticons or excessive punctuation) were younger than those who did not ($U = 312.5$, $Z = -2.834$, $p = .005$; $Mdn = 20$ and 27). Those who addressed the reader by making references to 'you' or using rhetorical questioning were higher in autonomy ($U = 354$, $Z = -2.336$, $p = .020$; $Mdn = 73$ and 65). Those using offensive language were younger ($U = 81.5$, $Z = -2.554$, $p = .011$; $Mdn = 18$ and 25) and higher in autonomy ($U = 111.5$, $Z = -2.060$, $p = .039$; $Mdn = 75$ and 66). Those who showed evidence of self-praise were higher in autonomy ($U = 141$, $Z = -2.255$, $p = .024$; $Mdn = 76$ and 65). Coding results for evidence of self-deprecation, humour or descriptiveness found no significant results.

The total number of groups and pages a user subscribes to was correlated against the explored variables. Age ($Rho = -.381$, $p = .003$, $N = 57$), psychoticism ($Rho = .414$, $p = .001$, $N = 62$), sociotropy ($Rho = -.272$, $p = .035$, $N = 60$) and autonomy ($Rho = .328$, $p = .009$, $N = 62$) were all significantly associated. Those low in sociotropy and younger users joined more groups and pages than those high in sociotropy and older users; whilst those high in autonomy and psychoticism joined more groups

than those low on those traits. Membership to different types of groups was explored. Those who had joined offensive groups or pages (those containing offensive language or of an offensive context) were higher in psychoticism ($U=337$, $Z=-2.381$, $p=.017$; $Mdn = 3$ and 2) and lower in neuroticism ($U=284.5$, $Z=-3.033$, $p=.002$; $Mdn = 5$ and 8.5). Those who had joined random groups or pages (groups with no obvious reason for joining such as “join if your surname begins with...”) were younger ($U=238$, $Z=-2.067$, $p=.039$; $Mdn = 20$, 25), higher in psychoticism ($U=231.5$, $Z=-2.911$, $p=.004$; $Mdn = 0.5$, 2), and lower in neuroticism ($U=294.5$, $Z=-1.977$, $p=.048$; $Mdn = 7$, 9). Finally, the membership of serious groups or pages (those supporting a particular cause, e.g. petitions) was explored, but no significant results were found. Sex was also explored for all three group types, but no significant results were found.

Finally, a measure of level of disclosure was taken by exploring any instances of deeper disclosure as set out by Haymes (1969). The inclusion of personal emotions, needs, self-awareness or dreams were coded as including a deeper level of disclosure. From a Mann Whitney U test, those higher in neuroticism were more likely to disclose deeper information ($U=354.5$, $Z=-2.251$, $p=.024$; $Mdn = 6$, 8).

5.3.6 PROFILE SETTINGS

Participants were asked to categorise whether their profile used their real name, a name that relates to their real name / a nickname, a name that reflects their offline identity, or a name that does not reflect their offline identity. No participants agreed with the last category, and as such only the first two categories were used (82.8% and 17.2% respectively). A Mann Whitney U test between these categories identified a significant difference in extraversion ($U=319$, $Z=-2.454$, $p=.014$). Those who used a nickname were higher in extraversion ($Mdn = 10$) than those who used

their actual name ($Mdn = 7$). Similar categories were used to distinguish between types of username. However, no significant differences were found.

Participants were asked to confirm their privacy settings by copying the defined categories from their Account page. For majority of questions, Facebook allowed six levels of privacy (Everyone, Friends and Networks, Friends of Friends, Only Friends, Only Me, and Other). Due to the high number of groupings, answers were re-coded into 2 comparable categories: items visible to those known within the profile (including 'only me' and 'only friends') and items visible to others outside the profile (including 'friends of friends', 'friends and networks' and 'everyone'). The 'other' category was dropped from analysis, as this represents a customised option of mixed settings. Extraversion, psychoticism and age significantly differed between chosen privacy settings. Those most likely to divulge biographical/about me information to those outside their profile network were higher in extraversion ($U=558.5$, $Z=-2.757$, $p=.006$; $Mdns = 7$ and 10), than those who restricted such information. Those most likely to divulge their personal information to those outside their network, were higher in psychoticism ($U=386.5$, $Z=-1.007$, $p=.010$; $Mdns = 2$ and 3). Those higher in psychoticism ($U=677$, $Z=-2.116$, $p=.034$; $Mdns = 2$ and 3) and extraversion ($U=627.5$, $Z=-2.371$, $p=.018$; $Mdns = 7$ and 10) were more open with their birthday date information. Those higher in extraversion had their religious and political views open to those outside their profile ($U=511$, $Z=-2.808$, $p=.005$; $Mdns = 7$ and 10). Those with more lenient privacy concerning family links, were higher in psychoticism ($U=430$, $Z=-2.325$, $p=.020$; $Mdns = 2$ and 3), extraversion ($U=418$, $Z=-2.263$, $p=.024$; $Mdns = 7$ and 10), and were younger ($U=407.5$, $Z=-1.971$, $p=.049$; $Mdns = 25$ and 19.5). Similar results were found for education and work information (psychoticism: $U=489.5$, $Z=-1.972$, $p=.049$; $Mdns =$

2 and 3; extraversion $U=407$, $Z=-2.700$, $p=.007$; $Mdns = 6$ and 10 ; age: $U=416.5$, $Z=-2.192$, $p=.028$; $Mdns = 25$ and 19). Those who had their photos and videos open outside of their profile network were younger than those with more restrictive settings ($U=377$, $Z=-2.227$, $p=.026$; $Mdns = 19$ and 25). Those who let users outside their immediate profile network view their photos albums were higher in extraversion ($U=393$, $z=-3.033$, $p=.002$; $Mdns = 7$ and 12). Those higher in extraversion had more relaxed settings, letting those outside their profile network view their posts ($U=520.5$, $Z=-2.792$, $p=.005$; $Mdns = 7$ and 10). Those that allowed their website information to be available outside their profile network were higher in psychoticism ($U=426.5$, $z=-2.285$, $p=.022$; $Mdns = 1$ and 3). Finally, those higher in psychoticism ($U=376.5$, $Z=-2.102$, $p=.036$; $Mdns = 2$ and 3), yet lower in extraversion ($U=312.5$, $Z=-2.804$, $p=.005$; $Mdns = 8$ and 6) were more open with their hometown.

There were no significant differences in personality and age between privacy settings of profile pictures, IM, mobile, phone, address, posts by friends, or comments on posts. Furthermore, there were no differences between those who allowed open searching on Facebook or public sites compared to those who hid their profile.

To explore any association of sex, $2 \times 2 \chi^2$ tests were conducted. Only two associations with privacy settings were found. These were with level of privacy of profile pictures and other pictures. For profile picture, both sexes were more likely to employ more open privacy settings, with $\chi^2=3.902$, $df=1$, $p=.048$, Cramer's $V=.214$ (men: 80% compared to 20%; women: 55.4% compared to 44.6%). For other pictures, women were more restrictive (73.3% compared to 26.7%), whilst

men were less restrictive (42.1% compared to 57.9%), with $\chi^2=6.255$, $df=1$, $p=.012$, Cramer's $V=.218$.

5.4 DISCUSSION

Personality does seem to be associated with certain aspects of profile creation and Facebook interaction; yet not all of these results were as expected.

Extraversion followed the findings of previous literature holding a positive correlation with number of friends as expected from hypothesis 1. However, the hypothesis itself was only partially supported. Extraversion was not associated with a higher number of photo albums or a higher number of groups. However, additional results support the motivations of use from the previous chapter.

Higher extraversion scorers were more likely to use a nickname or slight deviation of their real name on their profile. This may reflect their recreational use of the site. Furthermore, using a variation of their real name may make the profiler seem more sociable, creating a more favourable impression. This will help their motive of new connections. Those who make their relationship status and IM details visible are higher in extraversion than those who do not. Again, the inclusion of IM details can be seen as an invitation for further communication with either new or existing members of their network. The inclusion of a relationship status may suggest that introverts are more reluctant to post this information. Introverts not in a relationship may be concerned about negative judgements surrounding their single status. In terms of arousal theory, introverts may be seeking lower levels of stimulation via being more discrete. Adding such information to their profile may prompt social questioning, particularly when switching between statuses, which would add unwanted attention. In terms of privacy, those more open with their bio

settings, birthday, religious or political views, family, work and education, photo albums and posts had a higher extraversion score. This may suggest that extraverts are less protective of privacy compared to introverts. This fits both motivations outlined previously, reflecting their motivation to use Facebook as a recreational site rather than a serious platform, as well as opening their profile to new connections. Furthermore, it supports the idea that active participation may result in higher arousal levels (Mauri et al., 2011). Somewhat surprisingly however, those with open privacy settings for the hometown prompt were lower in extraversion. As Facebook is anchored to one's offline life, introverts may feel safe disclosing their hometown, as this would not provoke questioning from others who would presumably know where they lived. The existence of a potential moderator also needs to be considered. The offline participant group consisted mainly of students and held a higher extraversion score. Students may be more reluctant to disclose a hometown if they have moved away to live at university. Furthermore, this information may be explicit through alternative disclosures (for instance university address) and as such users may ignore the hometown prompt.

In terms of the validation questionnaire, results mostly fit previous findings. The link between introversion and lurking was supported through the negative correlation of the statement "I don't tend to write much on Facebook – I mainly just read what other people are saying". Introverts were more likely to agree that they made more friend requests than those they received. This could be seen as a consequence of the sociability of extraverts encouraging high numbers of friend requests from others due to the high number of friends they hold and the impressions they have made. Alternatively, this could reflect the association between introversion and a perceived change in personality discussed in the

previous chapter. Introverts may feel more socially confident on Facebook, and may appreciate the ability to promote a new relationship in an online manner to supplement their offline social relationship. Surprisingly, extraversion was associated with many aspects expected from the motivation of free expression. For instance, high scorers were more likely to agree that they were not afraid to join groups others disapproved of, that they used status updates to voice their opinion and they like to fill in all the information prompts so their profile is descriptive. However, rather than motivational differences these significant results perhaps reflect the underlying personality disposition of users, with extraverts more confident than introverts.

From the previous chapter, psychoticism was associated with the motivations of freer speech and new connections. Both of these motivations seemed evident when considering group behaviour. Those higher in psychoticism joined more groups and pages, perhaps supporting the idea that these users are seeking out similar others. Furthermore, users who had subscribed to at least one offensive group/random group were higher in psychoticism as expected by hypothesis 2. This fits offline research as psychoticism has previously been associated with aggression and interpersonal hostility (e.g. Carrasco, Barker, Tremblay & Vitaro, 2006; Center and Kemp, 2002). Although hypothesis 2 was only partially supported, as an association with offensive language and a larger word count was not found. However, those who held open privacy settings for personal information, birthday, family, work and education, website and hometown prompts were higher in psychoticism. As with extraversion, users may be attempting to attract new connections through open disclosure. However, psychoticism was negatively correlated to the number of activities listed. This may

be due to a preference for unusual activities with users reluctant to list 'typical' activities, such as 'reading'. The validation questionnaire supports the motivation of freer expression, with a positive correlation to the statement "I'm not afraid to join groups I believe in even if I know my friends won't approve" and a negative correlation to the statement "I am conscious of what I write in case I offend other people". It was also negatively correlated with the statements "I add people I don't particularly like just to get more friends" and "I would feel bad or guilty if I declined or ignored a request from someone I know". Both reflect the non-conformist and anti-social nature of a high psychoticism predisposition. These users do not appear to feel the need to make a positive impression on others. This again fits suggestions with the previous chapter that these users do not see Facebook as a primarily social environment.

Higher scorers of neuroticism reported that they were more likely to remove things off their Facebook wall as predicted by hypothesis 3. This may be seen as a reflection of preference for control over their profile, as these users may worry about the impression they are giving out to others. This fits the finding that those subscribed to offensive and random groups were lower in neuroticism than those who had not. Furthermore, those who made deeper disclosures (relating to personal emotions, needs, self-awareness or dreams) were higher in neuroticism. This supports Amichai-Hamburger and Vinitzky (2010) assertion that high neuroticism scorers disclose more in an effort to seek social support. Further research should explore the level of disclosure, perhaps by looking at the valence of such emotions. For instance, occurrences of disclosure surrounding guilt or anxiety would support this prediction. The validation scale seemed to support the motivation of escapism, with a positive correlation to the statements "I use

Facebook when I should really be doing something else” and “I use Facebook to avoid doing work”. Furthermore, the positive correlation with the statement “I log onto Facebook when I think my friends will be on” may suggest that this motivation is gratified through social interaction. High scorers were also more likely to agree to checking their friends profiles to ensure similarity. This again may be associated with their anxiety, and their aim to make a positive impression.

In terms of privacy settings and use of Facebook features, sociotropy did not uncover many significant findings. Those who included an email address on their profile were higher in sociotropy than those who did not. In addition, those lower in sociotropy had joined more group and page memberships. Those higher in sociotropy will strive to make a positive impression. These users may be reluctant to join groups due to a fear of looking bad or ‘liking’ something unfavourable by others. Although hypothesis 4 was not supported the inclusion of an email address by higher scorers may reflect an invitation for communication, as suggested by the information exchange motivation. However, it is difficult to connect these ideas to the motivations of conformity and ritualised use as found previously. The validation scale, on the other hand, provided many significant correlations which support the above ideas. For instance, the conformity motivation is supported through a positive correlation with “I check my friend’s profiles to make sure mine is similar”. The need to ensure a positive impression and maintain a good social standing can be seen by the positive correlations with “I am conscious of what I write in case I offend other people”, “I put a lot of thought into my Facebook use as I want to give off the right impression”, “I add people I don’t particularly like just to get more friends” and “I would feel bad or guilty if I declined or ignored a friend request from someone I didn’t know” and the negative correlation with “I am not

afraid to join groups I believe in, even if I know my friends won't approve". It should be noted that the latter correlation supports the previous hypothesis surrounding a lower number of group memberships. The final positive correlation with "I use Facebook to avoid doing work" may reflect a preference for the site over other activities, which encourages ritualistic use.

Autonomy was negatively correlated with the user's number of tagged photos. This may reflect a non-social need for using the site. Tagging can be seen as a predominant social feature, which seems to be of little interest to these users. Indeed, previous research suggests that autonomy is more associated with perfectionism over social approval (Moore & Blackburn, 1994). Thus they may view tagging as an unnecessary adherence to a Facebook social norm. Although consistent, hypothesis 5 was not supported. However in terms of content those who included 'interested in' and employer information were lower in autonomy than those who did not. The high scorer may be cautious about associating their social profile with their work identity; particularly as high scorers have a need for personal success. The lack of inclusion of the 'interested in' prompt again supports the idea that these users are un-interested in using the site to promote their social life. Those including their favourite music, films and books were higher in autonomy. This may suggest that those who are more autonomous are more likely to present themselves as an individual. However, users who showed evidence of addressing the reader were also higher in autonomy. Thus, users may still enjoy the social aspects of the site, but are not using it to improve their social standing. This is backed by their higher use of offensive language and self-praise. Finally, a positive correlation was found between autonomy and number of groups/pages subscribed to. Again, this reflects the need for users to showcase their

individuality. In terms of the validation scale, it appears that low scorers are more likely to use some of the secondary features of Facebook more so than high users, which may reflect their experimentation motivation as highlighted in the previous chapter. For instance, a negative correlation was found with the statement “I use Facebook chat facility”. Additional statements suggested that high scorers may be expressive and individual within their use of Facebook features. Positive correlations were held with the statements “I use my status updates to make a statement”, “I am not afraid to join groups I believe in, even if I know my friends won’t approve”, and “My status updates show my individuality”, which fits the underlying disposition of autonomy. However, a final positive correlation was found between autonomy and using Facebook to avoid work. High scorers are expected to strive for self achievement. Indeed, as above, autonomy is generally associated with perfectionism rather than social approval (Moore & Blackburn, 1994) so the result is somewhat surprising. However, due to their strong independence, perhaps this represents the idea that they will seek their own achievements rather than things that make other people happy.

Sex differences within use were minimal. Women more than men were more likely to include their birthday, whilst men were more likely to include favourite TV shows within the profile. The previous chapter suggested that males report disclosing higher amounts online. It was suggested that this reflects the distinction between on- and offline disclosure as opposed to differences between the sexes. This is supported by Nosko et al. (2010) who found no difference in self-disclosures between sexes. The similarities within the current results support these assertions. Again, Fullwood et al.’s (2011) idea of linguistic androgyny holds true. Disclosure differences reported within past literature pertaining to offline

socialisation no longer appear to be evident in the Facebook environment.

Motivational differences were supported by the validation questionnaire. Women reported higher agreement to the statement “I would feel bad or guilty if I declined a friend request from someone I know”, which supports the idea of social maintenance. Males on the other hand were more likely to agree to the statements “I have posted something sarcastic or offensive on a group/fan page” and “I don’t mind if strangers see my profile”, which supports the experimentation motivation through impression management strategies.

Finally, age held the highest number of significant results. Age negatively correlated with number of Facebook friends, which would be expected due to the motivation of younger users to seek new connections compared to older users. Younger users seem to be more active in using Facebook features to promote a positive social impression. For instance, those who reported a willingness to fix the visual display of friends on their profile were younger. Furthermore, younger users were more likely to ‘like’ comments on their wall. Also, those who included a pictorial element on their profile and used offensive language were significantly younger than users who did not. The inclusion of pictorial elements, such as emoticons and repetitive punctuation enhances perceived friendliness (Fullwood & Martino, 2007). The inclusion of offensive language may also fulfil a positive impression management strategy. Thus, such actions may be seen as an attempt to increase social popularity. Although diversity in language use could potentially reflect age differences in the use of CMC (Krohn, 2004). Younger users seemed to disclose higher amounts of information. This was not detected from the self-disclosure questionnaire from the previous chapter. Those including their birthday, family, relationship, ‘interested in’, ‘looking for’ and bio details were

younger than users who did not include them Younger users may be more inclined to disclose more information about themselves as they are more accustomed to the benefits to self-disclosure, such as relationship maintenance (e.g. see Fullwood et al., 2009; Youn, 2005). However, those including employer and job information were older than those who ignored the prompts. Thus these differences again reflect potential differences within type of use. Whereas younger users seem to be focusing on the social aspect of the site, older users may use it in a more factual manner. Older users displayed more favourite films, which may simply reflect more experience with this type of media. Younger users joined more groups, and were more likely to join random groups, which again highlights their motivation to make new connections and a positive impression. This may also be an implication of their motivation to procrastinate. Younger users held more open privacy settings for their family, work and education and photos/video prompts. This may suggest that older users are more concerned with privacy, in accordance with the literature (e.g. Paine, Reips, Stieger, Joinson, & Buchanan, 2006). Greater computer self-efficacy has been found to be associated to lower computer anxiety (Fogel & Nehmad, 2009). It makes sense that younger users would have high self-efficacy and therefore would be less anxious about privacy issues.

The validation questionnaire supports many of the above ideas. The motivation for young users to procrastinate was repeatedly supported. Negative correlations were found for the statements concerning using Facebook when they should be doing something else, and to avoid doing work, and getting addicted to 'app' games. Although older users were motivated to use Facebook for conformity reasons, this seems to relate to their choice of membership rather than Facebook behaviours. Indeed, younger users tended to report conforming to their network,

with negative correlations to the statements “I check my friends’ profiles to make sure mine is similar”, “I tend to “like” things my other friends have “liked” even if I don’t really have an opinion on it”, and “I tend to join groups/ pages that my friends have already joined”. This is seemingly linked to their underlying need to make a positive impression, as part of their motivation to seek new connections. Negative correlations were found with the statements “I only choose profile pictures that make me look good”, “I spend more time looking at or updating my own profile than I do looking at or contributing to other peoples”, “Once I join a group, I never really look at it again”, “I make sure I tag all my photos with the correct people”, and “I regularly change my likes to keep my profile updated”. It seems apparent that younger users focus more on Facebook as a tool of interaction and socialisation, whilst older users perhaps see it as a stationary social presence. Again, this is evident in the previous chapter and validated in additional significant statements such as “I like apps where you play with or compete against other people”, “I log onto Facebook when I think my friends will be on” and “I use my status updates to make a statement”.

5.4.1 LIMITATIONS

Some correlations were not validated as expected, and although many of the hypotheses were supported, some were not. For instance hypothesis 2 predicted a theoretical association between offensive language and psychoticism, which was not met within this study. This may be due to the anchored context of Facebook; anonymity is harder to achieve than within other online CMC environments. However, the current research is limited to the individual’s profile. It cannot be said that such a link does not exist outside this feature (for instance in group pages or private chat communication). The tentative association between high

psychoticism and trolling behaviours from the previous chapter was not upheld in this study, but may still be apparent within these external SNS environments. A longitudinal study of status updates or a closer look at wall post interactions would be better to explore these ideas.

The use of online recruiting through an academic listserv may have encouraged participation from tech savvy researchers who would have been more aware of privacy issues, or more concerned about including certain types of information in their profile. Furthermore, the different personality profiles of offline and online participants mediated by student demographics may skew some results (for instance, the non-disclosure of one's hometown). Thus results may be more pronounced or reliable with a different sampling method.

It is also important to recognise that some of the information analysed is not static. For instance, one's status and headline may change often. The use of the current information can only be taken as a snapshot of activity. Furthermore, these items can often be influenced by chain messages circulating Facebook. For example, someone may post short statuses, yet post a long dedication on Remembrance Sunday. Again, a longitudinal study would gain better insight into consistent behaviours. Results would also benefit from an exploration of social content (such as types of comments made on other's walls and comment responses to posts by others). However, the ethics of such a study would need careful consideration.

The update of Facebook amid data collection inevitably impacts on data accuracy. The questionnaire was modified mid-analysis and results surrounding the descriptiveness of content are cautioned. For future studies it is emphasised that procedures are put in place to ensure data can be collected within a short time frame. Furthermore, this update and more recent changes means that results can

no longer directly translate to Facebook profiles as they stand today. However, it is argued that the study still provides valuable insight into personality that is transferable regardless of context.

5.4.2 CONCLUSION

Although many of the visual set-up features of Facebook have since changed, the study has important implications in terms of interactivity between users and their profile. Previous research has focused on the Big Five, yet it is evident from this study that other personality variables such as the three-factor model and sociotropy/autonomy provide an interesting scope for research. In addition to the previous chapter, typologies of behaviour have started to emerge highlighting key aspects within a uses and gratifications framework, which will be discussed at the end of this thesis (Chapter 9). As the research stands it is difficult to discuss the implication of results in terms of well-being. Although it can be seen that personality types differ in their usage it is difficult to evaluate the impact of such usage without subjective insight. Thus the final phase of research explores the Facebook experience and the importance placed within user social lives for each personality type.

CHAPTER SIX: A THEMATIC ANALYSIS OF THE FACEBOOK EXPERIENCE (PHASE 3.1)

6.1 INTRODUCTION

Present statistics suggest that Facebook users are spending a vast amount of time on the site compared to other Internet sources (Nielson Wire, 2010; Watkins & Lee, 2010). Yet media coverage often highlights Facebook as a negative environment that is detrimental to one's safety and privacy (Nyland et al., 2007). Examples include worries of sexual predators (Ha, 2009); privacy concerns such as data harvesting and location stalking through Facebook's 'Places' feature (Spring, 2010); as well as more personal concerns such as those surrounding the introduction of facial recognition tagging software (eWeek, 2011) and addiction (Greenfield, 2009). The current phase of research aims to explore this juxtaposition further, by exploring user experiences of Facebook.

The importance of exploring outcomes of media use is emphasised in the literature. Through the Strategic and Motivated User, Expected and Emergent Effects Framework (SMEE) Joinson (2003) contends that users are strategic in their choice of media, with expected outcomes affecting use. This very much follows assertions within the uses and gratifications paradigm. However, with maintained use, it is suggested that users are likely to experience unexpected outcomes. Joinson (2003) therefore advocates a feedback loop, whereby the association of the user and their behaviour are maintained through consideration of renewed outcomes. In the context of the current thesis it is therefore suggested that motivations for use and behaviours on the site are not sufficient in maintaining a full understanding of SNSs. Indeed, it is vital to explore experiences

or outcomes of resulting usage in order to justify the theoretical associations made throughout this thesis.

The following three chapters explore Facebook experiences using a staged process. The current chapter uses thematic analysis to explore key concepts relating to user perceptions of their Facebook experience. Chapter seven will consider extracts from the current findings to be employed within a Q study used to group opinions of identified themes and quantify specific perspectives of Facebook as a social environment. Finally chapter eight will employ questionnaire methodology to explore whether certain personality types are more prone to specific viewpoints and experiences of Facebook.

6.1.1 PREVIOUS LITERATURE DISCUSSING FACEBOOK OUTCOMES

Despite the prevalence of Facebook, only minimal literature has been invested into its relationship with user well-being (Kalpidou, Costin & Morris, 2011) and consequences of use. Such research tends to focus on specific outcomes in a strictly positive or negative outlook.

6.1.1.1 *POSITIVE OUTCOMES OF FACEBOOK USAGE*

Following offline community research, studies have suggested that Facebook may improve well-being through increased social capital. Social capital in its basic definition refers to the increased benefit individuals may obtain from the resources of a community (Lin & Lu, 2011). Although earlier research was weary of the benefits of online social capital (e.g. Putnam, 2000), the explicit offline saliency of Facebook may allow traditional social capital to transfer online. For instance, Ellison et al. (2007) propose that Facebook use can increase individual self-esteem and psychological well-being, despite the large number of weak ties

held across the network; whilst Young (2011) found that users reported enhanced communication through the site and believed that this facilitated offline socialisation. Two types of social capital have been drawn from Facebook use: bridging and bonding. It is suggested that differing aspects of Facebook use are associated with each type. For instance Burke, Marlow & Lento, (2010) found that directed and active social interaction through the site increased bonding capital (homogenous group bonding); yet intensity of Facebook use generally (as measured with the Facebook Intensity Scale - Ellison et al., 2007) was related to reduced bridging capital (heterogeneous group bonding). In line with social capital, it has also been suggested that Facebook lowers levels of loneliness (e.g. Burke et al. 2010). Indeed, Beer (2008) argues that boyd and Ellison's (2007) distinction of a capitalised 'Friend' undersells the value of online friendship; maintaining that Facebook has the potential to develop friendships that would otherwise be ignored. Moreover, Gonzales and Hancock (2011) argue that modifying one's profile can lead to heightened self awareness, subsequently enhancing self-esteem.

Furthermore, the concept of e-empowerment (Amichai-Hamburger, McKenna & Tal, 2008) can be applied to SNSs, which suggests a large number of benefits across three levels: personal, interpersonal, and group. On the personal level, users can experiment and reframe their identity and increase their self-efficacy through trialling their social skills and behaviour within an online environment. On the interpersonal level, interactions may run smoother or with beneficial consequences. The authors argue that users have increased control over interaction responses, lending itself to a potential 'poor-get-richer' scenario of well-being (where socially unskilled users can benefit from interaction

structuring). Furthermore, the Internet reduces some of the stereotypical and cultural judges or physical boundaries placed on face-to-face interaction. At the group level, users are able to find similar others with relative ease. Group behaviour is generally strengthened by the Internet with enhanced group norms and superior technological tools improving group decision making and group leader perception.

However, the authors admit that their paper only focuses on general positives surrounding these issues, and recommend caution in interpretation. The Internet offers an empowerment tool, but it is up to individual users to utilise this to their benefit. Within certain contexts, empowerment of an individual or group may not be beneficial for others. As a recent example, the 2011 UK riots were said to be incited by SNSs with users promoting violence within strengthened groups.

Furthermore, individuals or groups may partake in anti-social acts of 'flaming' and 'trolling', whereby users deliberately post malicious and offensive comments (Lea, O'Shea, Fung & Spears, 1992).

6.1.1.2 NEGATIVE OUTCOMES OF FACEBOOK

Several studies have focused purely on potential negativities surrounding Facebook use. Tokunaga (2011) for instance, identifies three unique characteristics, which enhance negative outcomes within the SNS environment. These are uncertainty surrounding contextual social norms, uncertainty surrounding the true definition of the Facebook Friend and low social presence. Through open-questioning, ten key categories of potential negative events emerged. The most salient of these were negative responses to friend requests (being deleted or ignored), deletion of user content, and ranking behaviours within 'top friend' applications. These ideas also reflect observations made by boyd

(2006). Furthermore, the notion of user uncertainty is supported by Ballam and Fullwood (2010) who found that SNS users often seek clarification from others and appreciate guidance towards their online social behaviour. Such negative events may reflect those within offline social situations.

Additionally, a relatively large amount of research has focused on relationship breakdowns. It is suggested that Facebook promotes jealousy and can cause relationship detriment. Elphinston and Noller (2011) suggest that high scorers on the Facebook Intrusion Questionnaire (based on levels of addiction behaviours) were more likely to experience jealousy in their offline romantic relationship. These results echo the findings of Muise, Christofides and Desmarais (2009), who suggest that increased Facebook use increases jealousy by encouraging users to search for 'incriminating' information. Research by Chou & Edge (2011) suggests that users judge those on Facebook to have happier and better lives than themselves, which follows Jordan, Monin, Dweck, Lovett, John, and Gross' (2011) findings that individuals overemphasise the happiness of others. This research may be closely related to potential acts of 'Facebook stalking' or monitoring behaviours. Indeed, Darvell, Walsh and White (2011) found that a user's partner trust and log-in usage predicted monitoring of their partner's SNS usage. The authors concluded that further research needs to focus on the negative implications surrounding this. Furthermore, in an exploration of married couples, Helsper and Whitty (2010) found that in 45% of couples at least one partner reported using online monitoring behaviours. Wives were more likely to monitor their husbands, which the authors suggest is due to higher levels of worry and easy access. However, despite negative connotations surrounding Facebook stalking,

Young (2011) argues that some users perceive it is a positive experience, as perhaps a form of passive communication.

Finally, drawing on from negativities surrounding Internet addiction (e.g. Young & Rogers, 1998), the term 'Facebook depression' has been coined (O'Keefe & Clarke-Pearson, 2011) to reflect a number of studies and anecdotal suggestions linking Facebook use to symptoms of clinical depression. For instance, Kalpidou et al. (2011) found that those spending more time on Facebook had lower self-esteem. However, caution surrounding a cause and effect relationship should be maintained. Furthermore, research has suggested that type of use may modify such a relationship. For instance, Valkenburg, Peter and Schouten (2006) found that feedback from Friends may enhance or diminish self-esteem depending on tone and frequency.

6.1.1.3 OUTCOMES AS AN EXPERIENCE

Research has tended to focus on either a positive or negative viewpoint, yet a balance of these elements is needed to gauge a better understanding of Facebook as a social experience. Furthermore, exploratory research may uncover more unexpected outcomes. Johnstone, Todd and Chua (2009) conducted a thematic analysis on interviews of Facebook use. The authors focussed their discussion on the key theme of social connections, defined either directly through user interactions or indirectly through profile browsing. The authors suggested that Facebook promotes meaningful and essential social interaction, through maintenance or even resurrection of existing relationships, and by promoting free interaction that may be inhibited in an offline context. Additionally, the authors stated that Facebook was of particular benefit for men, who were able to enhance disclosure and intimacy through the site. However, the themes also identified

feelings of rejection or apprehension, which was attributed by the authors to one's need for affiliation and fear of exclusion. Furthermore, perceived exclusion from the lack of a friend request was met with negativity towards self-esteem and sense of belonging. Although these themes represent a more comprehensive view of the Facebook experience, the study itself is based on semi-structured interviews, which may sway the discourse to a particular line of thinking. Data collection from a more naturalistic source may provide a more candid outlook.

Although the above studies add a unique insight into Facebook, the literature generally lacks a specific focus on overall outcome experience. Instead studies have tended to focus on key issues within Facebook usage, rather than identifying niche outcomes of Facebook. For the current study it is important to ascertain a more general overview surrounding the Facebook experience in order to explore which specific issues directly link with personality.

6.1.2 AIMS AND HYPOTHESES

Exploring Facebook outcomes in terms of a perceived experience will allow a clearer insight into individual uses of the site. Kalpidou et al. (2011) argue that it is clear that personality will affect reactions to potential outcomes of Facebook to some degree, but research also needs to focus on attitudes towards Facebook. The purpose of the current study is to explore how Facebook is perceived by its users. More specifically, the research is guided by three specific research questions: 1) 'How do people perceive and experience Facebook?'; 2) 'In what ways does Facebook appear to affect its users?'; and 3) 'What are the potential outcomes of Facebook use?'. The goal is to explore these experiences in relation to previous literature, and find potential consequences or outcomes that arise from the Facebook experience. Although the literature above provides insight into potential

ideas that may be discussed by users, the current research aims to explore ideas in an exploratory and free manner, and is guided by findings as they appear in a naturalistic setting. Results are created in conjunction with subsequent chapters, yet standing alone they provide a unique insight into the Facebook experience.

Based on previous literature, it was expected that personal experiences would be generally positive in terms of its practicalities and gain of social capital, and reflect the ideas discussed within Johnstone et al. (2009). In terms of uses and gratifications, Facebook must offer some level of gratification in order for users to choose the media over other alternatives. However, negative experiences have been previously drawn upon. Jealousy in particular is heavily cited as a pitfall of use.

6.2 METHOD

6.2.1 DESIGN

Data were taken from discussions of Facebook on an online forum. Online forums, sometimes referred to as message or discussion boards, are user-driven environments of communication usually between individual members who are drawn together to discuss a particular topic. The sites are made up of a number of categories relating to this given topic. For each category individuals (known as 'posters') can choose to start a new discussion (known as a thread) or reply to existing conversations (known as posting within a thread). Forums operate within an asynchronous manner. Thus threads can be added to at any time after the initial posting, unless the thread is 'locked' by a forum administrator.

Online forums are a relatively new environment for data collection, yet they appear to be well-suited to qualitative research, with several studies already analysing the online discourse using a form of thematic analysis. For instance, Im and Chee (2006) collected data from an online forum created to explore cancer support. Malik and Coulson (2008) used thematic analysis to explore male infertility experiences within an online support bulletin board. Sullivan (2003) explored gendered discourse from two online cancer support groups using thematic analysis from a phenomenological angle. Finally, Wright (2000) used thematic analysis within grounded theory to explore social support within older adults in an online community.

Online forums in general have been praised in regards to the advantages they hold. Im and Chee (2006) summarise that the environment particularly benefits from the potential of rich data, promptness of information, lack of geographical limitations, ease of use, and decreased human error due to automatic transcription through participation. Richards (2006) highlights that researchers need to overtly discuss several key aspects about the data collected in order to consider an overview of suitability for the medium used. When taking data from an online forum, these key considerations may differ when compared to more traditional means (e.g. transcripts from face-to-face interactions). For instance, data will be taken directly from the forum, which will reduce the possibility of transcription errors and thus increase accuracy in its original context. However, the context itself is harder to assess, due to the limitation of social cues within the CMC environment. Although online forums and CMC environments in general are criticised for their lack of context, it is important to note that participants often reply multiple times to a message to increase the clarity of their opinion. There

was evidence of this repeatedly throughout the current data corpus. To summarise, online forums offer an alternative and useful medium of qualitative data collection compared to traditional offline methods.

6.2.2 PARTICIPANTS

Data collection was conducted on a well known student forum (thestudentroom.co.uk - abbreviated to TSR). The forum is aimed at current and potential students at varying levels within the educational system. However, student authentication is not a requirement for membership. As students are noted for their high Facebook usage (Lampe, Ellison & Steinfield, 2006), it was thought that the generated discourse would highlight any extremes in differences of opinion. In August 2010 when data collection took place, TSR boasted over 470,000 members and claimed to hold more than 25,000,000 forum posts. The forum is free to join, although registration is required for posting purposes. The forum is moderated, reducing chances of flaming and trolling which may otherwise adversely affect data collection. In an online forum data can be taken with passive or active intention (i.e. data can be taken directly from pre-existing threads or created through researcher questioning). In this instance, data threads were passively collected from the existing community, who were not prompted with questions or threads from the researcher. This was to ensure a more candid view of the Facebook experience and to gain insight into the most salient Facebook features without leading the line of discussion. It is however important to note that not all posters were Facebook users. Indeed, many explicitly stated that they had stopped using it, whilst others had never used it. These entries were not excluded as they still held valuable insights into perceptions of Facebook.

The exact number of active contributors to the threads analysed was not calculated. Im and Chee (2006) suggest that participant sample size loses its relevance within CMC analysis, with data depth a more important factor. Furthermore, Richards (2006) concurs that sample size is not a relevant criterion within qualitative research. Indeed, it was suggested that a large bank of data may prove to be practically problematic. Thread topics were drawn from analysis until it was thought that there was sufficient information to code effectively. Thus data collection ceased when remaining threads became repetitive or were not found suitable for the criteria.

6.2.3 DATA COLLECTION

Despite its seemingly specific sample base, TSR is an incredibly vast forum. At the time of data collection forum channels included general discussions, life advice, hobbies and interests, debates and current affairs, study help, and those surrounding university, colleges and employment. Furthermore, each channel has many sub-channels. Members are free to discuss anything that they wish within these sub-forums (although forum guidelines prohibit offensive posts and illegal activities which are enforced through user reporting).

The forum was searched through 'google.co.uk' as the TSR forum searches via date posted over key term relevance. To generate a potential data sample, the search terms "Facebook is" OR "Facebook makes me" followed by "site:thestudentroom.co.uk" was used. This tallied a total of 3,120 results. From the initial 20 pages of search results, forum threads were explored for suitable topics. This was a subjective decision, based on number of posts in the thread and eyeballing post comments. Those with less than five responses were automatically excluded. Threads before 2008 were immediately discarded due to considerable

changes in Facebook's set up before this date. Furthermore, threads looking for practical Facebook advice (such as how to change a particular setting) were removed, as such threads resulted in practical advice in using the site rather than personal opinions or experiences. Once threads were selected the site was searched manually for general Facebook threads to ensure important topics were not missed.

Altogether 29 individual threads were analysed, consisting of a total of 1,768 posts. Refer to Table 3.1 for an overview of sub-forums from which the threads were taken. Although the thread titles may appear biased due to a majority negative form, contradictions were often debated within the thread.

Table 3.1: Tally of threads analysed from each sub forum			
Thread Name (<i>sic</i>)	Thread Location	Date of thread	Number of Responses
Adding People on facebook	Health & Relationships	13/11/09	6
Deleting people on facebook	Health & Relationships	24/11/08	12
Do people purely go out to take facebook photos	Chat	3/11/09	124
Does anyone else dislike/hate facebook?	General Discussion	20/11/09	28
Does everyone have a facebook/myspace?	General Discussion	9/1/09	99
Does Facebook make you feel socially inadequate?	General Discussion	21/7/08	59
Ex girlfriend deleting from facebook	Health & Relationships	25/1/09	9
Facebook friend requests	Health & Relationships	17/7/10	31
***** FACEBOOK is putting me at a potential future disadvantage!!	Health & Relationships	16/12/09	59
Facebook makes you feel like a loser	Health & Relationships	28/8/09	75
Hate being rejected as a friend on Facebook....	Health & Relationships	8/11/09	119
i am sick of facebook	Health & Relationships	28/1/09	31
i don't have facebook am I the only one!!	Health & Relationships	15/3/09	72
I have deleted my facebook account, its too depressing...	Health & Relationships	7/10/08	27
I'm scared to go on Facebook	Health & Relationships	13/7/08	99
Is the purpose of a Facebook status purely to brag about your life?	General Discussion	9/2/10	103
Is there anyone left without facebook?	General Discussion	26/7/10	146
People deleting you on Facebook	General Discussion	13/7/08	79
Posting a topless pic of yourself on facebook	Chat	11/9/09	63
stupid stupid stupid facebook	Health & Relationships	16/12/08	29
What's so good about social	General Discussion	16/7/08	26

Table 3.1: Tally of threads analysed from each sub forum			
Thread Name (<i>sic</i>)	Thread Location	Date of thread	Number of Responses
networking sites			
what's the average number of friends on facebook?	General Discussion	10/11/08	70
Who wishes facebook didn't exist	Health & Relationships	11/8/10	131
why do people write on facebook walls	General Discussion	24/11/08	50
'Facebook' is adding to problem of loneliness, say Samaritans	General Discussion	31/12/09	54
Facebook, MySpace, Bebo etc – will they last?	General Discussion	14/5/08	17
Facebook is depressing.	Health & Relationships	7/1/09	95
Facebook makes me feel so lonely	Health & Relationships	2/5/09	30
Making friends when you don't use facebook....	Health & Relationships	5/2/10	25

6.2.4 ETHICAL CONSIDERATIONS

Ethical issues surrounding data collection from online forums have caused controversy and great discussion (Ess, 2009). It is often advised that studies are considered within their individual context (Brownlow & O'Dell, 2002), although generic guidelines do exist. Eysenbach and Till's (2001) proposals appear to be widely accepted. It is suggested that informed consent is not necessary when a forum is explicitly public and users of the forum are aware that any contributions are not in a private capacity. This sentiment is shared by Mann and Stewart (2000) who compare such methods to participant observation, whereby consent is not required. The forum's high membership count and explicit posting guidelines suggest that all posters are aware that contributions are made available for public viewing. Furthermore, all data was collected without registration to ensure that

data was of an overtly public manner. No usernames or personal identifiers will be provided within the analysis. This is to protect user confidentiality, given that usernames tend to be consistent across a multitude of Internet activities (Barnes, 2003).

6.2.5 DATA ANALYSIS

The current study applies a qualitative approach to gain insight into how Facebook is experienced. Qualitative analysis is praised for its ability to be exploratory and guide future research (Barbour, 2000). This makes it a suitable method for exploring the current topic generally, as well as drawing out potential Q study statements for the second phase of analysis (chapter seven). The current study specifically chooses to use thematic analysis to extract a general overview of discussed ideas. The aim of the research is not to pick out subtleties within the discourse, but rather to categorise the discourse to aid later stages of research. Initial topic coding was identified with the help of NVivo 8. The use of organisational software has been said to enhance the thoroughness of one's methodology (Richards & Richards, 1991). However, full analysis was not restricted to the software. From the NVivo summaries, advanced analytical coding and interpretation was conducted by hand. It is suggested that analysis through computerised and traditional hand methods offers an optimum level of interpretation (Welsch, 2002).

Thematic analysis is a popular qualitative analytical approach, which can be used individually as an approach in itself, or in conjunction with a particular theoretical position as a primary step (Braun & Clarke, 2006). It can also be viewed as an organisational method to view data in a more synthesised manner, as in the current study. When used in its own right, thematic analysis does not need to be

associated with any particular epistemology (Braun & Clarke, 2006). Furthermore, thematic analysis is noted for its usefulness in gauging perspectives of experience (Aronson, 1994).

Thematic analysis requires the researcher to 'code' a set of data (known as the data corpus). Through categorisation of individual items or extracts into codes, similarities develop through a common 'theme'. Themes revolve around the research questions being explored. Despite its high applicability, it is difficult to identify studies that have used thematic analysis exclusively. Studies are often passed off as alternative forms of qualitative research (such as discourse analysis); particularly if thematic coding is at the heart of another approach, rather than the main approach itself (Braun & Clarke, 2006).

There are several frameworks that offer methodological hints towards successful thematic analysis (e.g. Aronson, 1994; Colaizzi, 1978); however, Braun and Clarke's appears to be the most generic and has already been implemented successfully within past literature (e.g. Brady & Guerin, 2010; Malik & Coulson, 2008). The framework will be drawn upon for the current study, which stipulates that a progressive and repetitive process should be adopted. The framework follows six phases of analysis. These phases and their relation to the current research methodology are set out below.

Phase one: Data Familiarisation. Threads were initially eyeballed to be selected for data analysis (following the guidelines set out above). Once all threads were selected, they were repeatedly read to explore initial ideas and increase data acquaintance.

Phase two: Initial Code Generation. Threads were then read individually in an in-depth manner. Interesting data items (postings) were coded with initial ideas, which were stored using NVivo 8 software. At this point, data items, rather than specific extracts, were coded in order to preserve the original context of items (Bryman, 2001).

Phases three and four: Theme initialisation and Review of final themes. Once all threads had been initially coded, these codes were reviewed for associations. From this potential theme conceptions were drawn. Themes and codes were reorganised into an initial plan of ideas. Originally codes were categorised under four themes. These were preliminarily entitled: 'Factors affecting use', 'Positive outcomes', 'Negative outcomes', and 'Perceptions of others'. However, the structure of these themes appeared to be too vague. Codes within themes were too diverse and significant overlap was found between themes. Therefore the framework was revised to pick out these differences. Following several amendments eight key themes emerged. Themes fall under two hierarchical categories. These themes were revised to ensure that they were representative of the data. An adequate evidence base for each theme was available within the data extracts, fulfilling this criterion.

It is important to note that key themes were not necessarily chosen on their popularity within the data corpus; rather researcher based judgement of importance should take precedence (Braun and Clarke, 2006). Furthermore, prevalence within an online forum is particularly difficult to assess as the number of replies may be attributed to external factors over importance of topics (such as timing of initial posts, number of threads created that day, popularity of original poster, etc.). Thus theme refinement within this current study is based on

goodness-of-fit and interpreted importance from participants. Moreover, prevalence was given to overt outcomes of Facebook use rather than aspects of use or Facebook behaviours more generally; offering a unique angle of investigation.

Phase five: Theme and sub-theme definition. Once, themes were finalised, data extracts within each theme were explored more explicitly to identify those that were most able to encapsulate the focal idea of the theme. This was perhaps the most interpretative part of the process, as the entire context of the extracts needed to be considered to measure suitability. Some theme names hold overt links to previous psychology literature. Although this was not intentional, the presence of social psychological phenomena was strongly apparent and appeared to capture the core principles of the theme's description in many instances.

Phase six: Production of the report. Verbatim quotes are taken from the data to add weight to theme narratives (Breakwell, 2000).

As part of the above framework, several decisions about the analysis style must be taken. This particular study decided to focus on a general description of the entire data corpus. This is because the results will be explored in more detail during the Q study. The study adopts an inductive standpoint, as the aim of the study is exploratory in nature. However, although the analysis itself is data-driven, the results are discussed in light of previous theoretical findings. Finally, the data will be analysed in a semantic manner to ensure data is accurately represented in subsequent stages of research.

Although it is harder to assess validity and reliability within such qualitative methodology, it is thought that evidence of well-founded and consistent research methodology equates to a satisfactory alternative (Richards, 2006). Indeed, Welsch

(2002) argues that such ideas can only be measured by the author's overt openness towards chosen methodologies and thinking processes. This concurs with Richards' (2006) emphasis that despite the fluidity of qualitative studies, the importance of stating one's purpose, goal and outcome as discussed throughout this chapter is vital in understanding a project's evolution. In terms of analysis it is also important to be aware of computer or Internet jargon which may be prominent throughout the forum. Although general Internet abbreviations were found (e.g. LOL), the forum did not appear to have any specific abbreviations attached to it. Thus the forum appears accessible both in terms of gaining a non-restrictive sample and in terms of analysing data from a researcher perspective.

6.3 RESULTS

Within the current study, forum users were found to discuss their experience of Facebook in two distinctive ways: either they discussed the outcome of their Facebook usage or factors of Facebook that seemingly influence or moderate the way these outcomes are experienced.

The outcomes of Facebook consist of five distinct yet related themes. These are Social Comparison, Social Empowerment, Social Exclusion, Social Detriment, and Social Impact. The influencing factors on the other hand consist of three factors. These are labelled Opinions of Facebook, Perceived Control and Offline Circumstances. Please refer to figure 1.1 for a visual diagram and summary of themes.

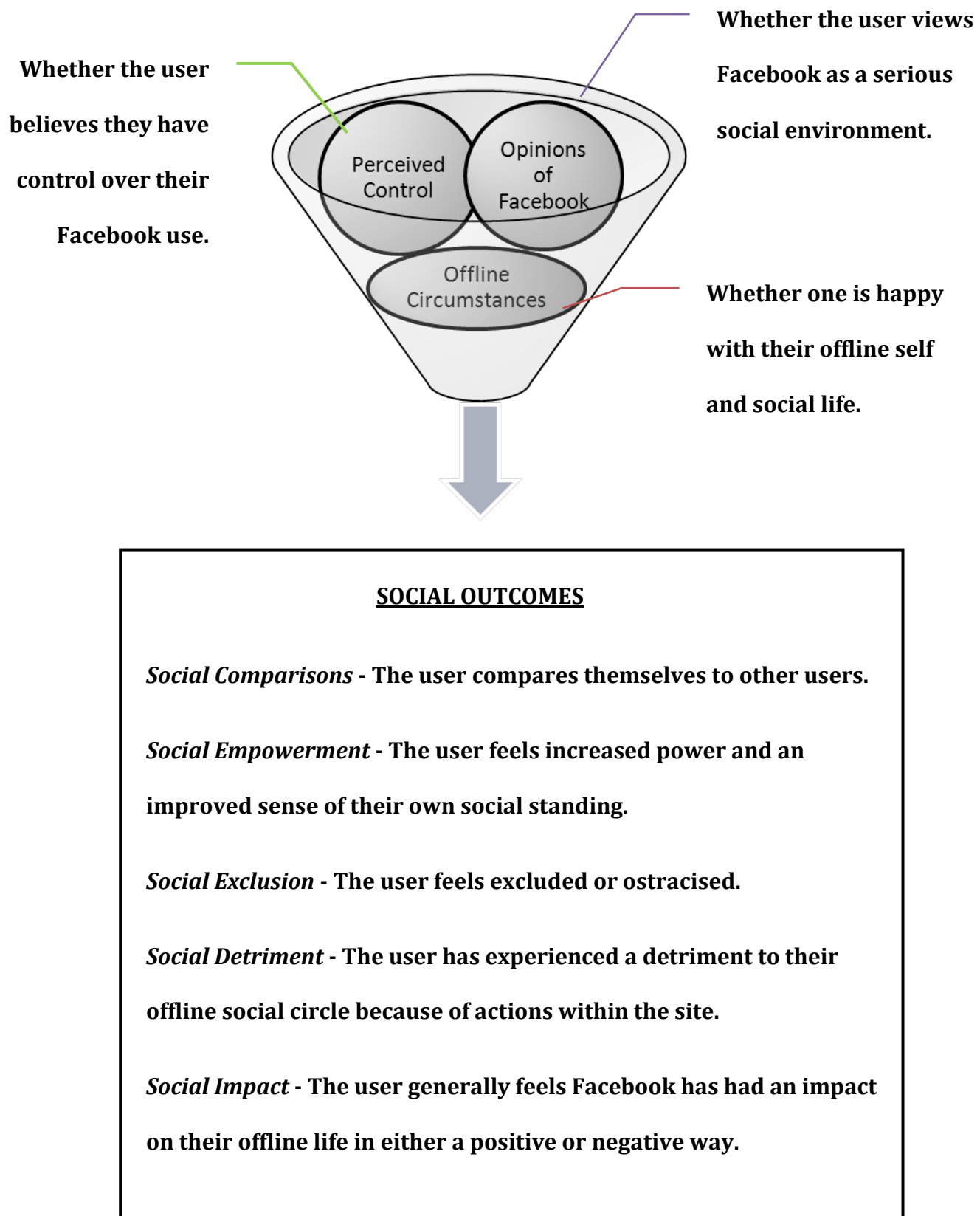


Figure 1.1: Visual representation of thematic analysis, showing 5 outcome themes and 3 influencing factor themes, with short associated descriptions.

Themes will be discussed in turn; although their relation will become apparent within the analysis. As will be demonstrated, themes are not mutually exclusive, and categorisation under such themes should not be seen in strict opposition. Data extracts are taken directly from the online forum and thus may be written in 'net speak'. Additional key quotes are provided within Appendix 11.4.1. Spelling and grammar mistakes have not been altered. The forum automatically censors offensive words with the use of asterisks.

6.3.1 OUTCOME THEMES

6.3.1.1 *THEME 1: SOCIAL COMPARISONS*

Many users reported that they experienced social comparison behaviours on Facebook. These comparisons tended to be of an upward nature, seeing others as socially above them, resulting in a negative outcome. However, downward comparisons were evident in some circumstances. In traditional social psychology, Social Comparisons Theory (Festinger, 1954) suggests that an underlying drive exists to compare ourselves to others around us in a similar position. Work stemming from this theory has highlighted how underlying comparison behaviours may result in negative effects. For instance, Bruckman and Bulman (1977) suggest that any comparisons rely on an element of superiority versus inferiority, and Tesser (1988) warns how comparisons between friends can be particularly threatening. This theme also supports recent research by Haferkamp and Krämer (2011) who found that experimental manipulation of a profiler's profile picture (level of attractiveness) and occupation (low or high) resulted in user social comparisons, with upward comparisons affecting the level of positive emotion experienced by the user after viewing the profile.

Frequent upward comparisons were made, with users seemingly candid about these comparisons evolving into jealousy (quotes 1 and 2). For many this comparison can be extremely detrimental to their self-esteem. Indeed some users comment on this in an explicit manner (e.g. quote 2). Furthermore, social comparison jealousy has been found to make individuals more anxious about future interactions with the people involved (Salovey & Rodin, 1984).

1: “lol, i hate going on facebook too, usually because it makes me jealous.. dunno why, i have a fine life and im not bad looking, i just start feeling like some inferior loser whenever i go on it haha”

2: “today I went on their and I felt **. The guy I used to be close to has loads of pretty girls writing and joking on his wall. I could never be cool enough to do that and just "fit in". Everyone in my old year has posted pics of their travellings trips, while Im stuck at home with an over-protective family, junking out in front of the TV and dreading September. I just felt so low when I saw everyone having so much fun on their (with pics to prove).”**

Research by Jordan et al., (2011) suggests that individuals tend to underestimate the prevalence of negative emotions others have. This is due to a general tendency for individuals to suppress negative emotions so that only positive emotions are displayed to others. This results in an overall perception that everyone else is in a better position than the individual, which can lead to detrimental consequences such as loneliness and lower life satisfaction.

Furthermore, the study by Jordan et al. emphasised that individuals tend to have a distorted perception of the social lives of others through overestimating visual evidence of an active social life. These ideas seem to be emphasised on

Facebook, with Chou and Edge (2011) reporting similar findings. Users can be incredibly selective with the information they put on Facebook. Online impression management research already suggests that users have strong control over their online self-presentation (Ellison, Heino & Gibbs, 2006). Moreover, it may be easier to make comparisons on Facebook compared to offline. The 'Warranting Principle' by Walther et al. (2008) suggests that Facebook users place high importance on third-party comments (i.e. those made by friends over content posted by the original profiler). The visual presence of positive interactions from others creates a strong positive impression of others. When this research is coupled, it is clear that for some users Facebook will enhance feelings of inadequacy in comparison to others. Indeed many extracts recognised and echoed these sentiments, in either a personal manner (quote 3) or through external observation (quote 4).

3: "There's nothing worse than hearing of people's marvellous, spontaneous social lives when your own seems like such a drag in comparison."

4: "I think the problem with some people is mental toughness, when they see others posting pics etc enjoying themselves they think that their life is a dump and the other person is having a great time but what do they know that other person might be in a worser position then themselves, basically fb is glamorised out to be something its clearly not."

Although the presence of upward comparisons were much more salient throughout the quotes, downwards comparisons were present in a more subtle manner. Many extracts were coded under the idea of "bragging". Users commented on the number of people using Facebook to brag. There was an

implication that users indulged in bragging to compare themselves in a positive manner to others, as a way of boosting their own self-esteem (quotes 5 and 6). Quote 6 highlights the relationship with bragging and downwards comparison particularly well. However, it is worth noting that bragging was also seen as sharing of good news (discussed under Theme 2).

5: “i think people use it to show off and compare their social life, where they take 100 pictures of ONE night out... fun.”

6: “My latest status is”... **censored... “I was bragging, and making sure people know that I am better than them.”**

Many of the quotes appear to discuss social comparisons in a generic manner; yet there were some extracts pinpointing aspects of Facebook which enhanced such thoughts. For instance, there are several Facebook applications available in which users are asked to compare or rate their friends. Such applications usually draw up a ‘leader board’ of personal traits (e.g. kindest friend, top friend, etc.). These applications seem to have a strong impact on some users (quote 7). Tokunaga (2011) and boyd (2006) have previously discussed how such applications can lead to feelings of social rejection. Facebook’s newsfeed function was also highlighted as exacerbating the situation (quote 8). Again, the visual saliency of such features may enhance the consequences experienced.

7: “That particular thing was sparked off when a friend of mine started getting Compare People emails, despite having not asked for them. It was soon rectified, of course, but the damage was done when he saw exactly how people had “ranked” him as a friend.”

8: “...it's going to make you feel rubbish AND the fact that it's completely

thrown in your face, even if you're not being nosey and looking through people's photos, they always seem to appear on news feed."

Finally, others discuss the existence of 'Facebook stalking' whereby users repeatedly search through profiles of others, without control or apparent reason (refer to the 'Perceived Control' theme). Some extracts detailed that stalking resulted in comparative thinking (quote 9). This does not echo the positive sentiments of stalking within Young (2011).

9: "I hate how addictive it is...but yet its such a waste of time lol...also brings out a not so nice stalker side of me 🤖 looking through peoples pictures wishing I had their lives/bodies and faces."

6.3.1.2 THEME 2: SOCIAL EMPOWERMENT

Many posters discussed Facebook in terms of its outcome on their social standing, which has been captured within the theme social empowerment. The term empowerment in this instance does not directly relate to Psychological Empowerment Theory as stipulated by Rappaport (1987) and Zimmerman (1995), which refers to the proactive process one takes in order to provide benefits and gain mastery over relevant issues. Rather a more generalised concept of the construct is drawn upon, whereby users are experiencing positive outcomes through increased power and perceived happiness. However, similarities are drawn between the theory and the current quotes, such as drawing strength from communities and gaining power from the evaluation of others. Social empowerment in this instance perhaps encompasses ideas of increased social capital with social power, and relate more specifically to the idea of e-empowerment at the personal and interpersonal level as discussed by Amichai-Hamburger et al. (2008b).

The following quotes highlight that users sometimes feel a sense of increased community involvement through Facebook use. The sharing of information perhaps supports the idea of shared intimacy, enhancing a sense of social support (quotes 1 and 2). There is a sense that the happiness of others improves the users own happiness. This echoes previous literature of offline interactions (Ekman, 2003 Totterdell, Niven & Holman, 2010). Furthermore, these ideas feed into social capital literature. This was often discussed in opposition to accusations of Facebook as a bragging environment.

1: “My sisters both have face book and they put tonnes of pictures of themselves, every time they go on holiday they will put pictures of the places they been to etc, that’s not to show off but some of their fiends requests seeing them as there are people on face book who you don’t see regularly and it nice to share with your friends and family the things you been up to.”

2: “I've wrote similar status' but it's not to brag...I never really thought of it like that. It's moreso because I'm happy or achieved something and can't really contain myself. You'd tell your friends if you got into your frist choice Uni, got really good grades or started a relationship you were excited about...fb i just a more effective way of doing that.”

Indeed, it appears that many value Facebook at face value for its practicalities; as a medium which appears to improve communication and social maintenance (quotes 3 and 4). Again, improved accessibility links into increased social capital.

3: “I actually love how easy it is to just tell everyone something all at once

and see them all reply etc. - Like birthdays and stuff, just create an event, invite everyone you want and then they are all free to discuss it with you and each other."

4: "Facebook is brilliant for leaving people free messages, seeing what people are doing, organising things, photos, etc."

Many posters view Facebook as a nostalgic archive of visual social memories, and take great value from this. Research suggests that reminiscence of previous positive memories can improve current mood (Bryant, Smart & King, 2005). It seems likely, in line with impression management research, that posters will have a tendency to only post photos which portray themselves positively (Carlson, George, Burgoon, Adkins & White, 2004), which the user will ultimately feel positive about. Therefore, the ability to view these photos so readily each time the user logs on may improve mood or general well-being. Quote 5 appears to support this idea. Indeed, research suggests that the positive bias of Facebook information may have the ability to improve self-esteem (Walther, 1996).

5: "When I tell my children what their grandmum was like, I want them to see *her*. And I'll want them to see *me*. Not just, 'there's me at my 21st, oh and there's me at a friend's wedding, and there's me at my mum's funeral'. I want them to see how I was doing ordinary things. I grew up hating photos and I still do, and I've never taken a non-essential photo of myself in my entire life (i.e. except for Uni ID, etc.) yet there are somehow over 1,000 pics of me on Facebook. Of me in the practical room at Uni, in lectures, out for lunch and dinner, in the living room watching tv, at the park, volunteering, out on walks, sleeping (damn her!), travelling, site

seeing, leaving for uni, at special events, hugging people's pets and children and yes, also at clubs. Not much of my life is spent standing next to cakes of celebration, so I don't see why my photos should be restricted to such ... I've had the best few years of my life and I want to remember as much of it as I can (my memory is notoriously awful). I fail to see what's wrong with that!"

Some quotes seemed to reflect a feeling of social power from the nature of friendship requests (quote 6). The alternate social reality offered by Facebook, combined with the online disinhibition effect (Joinson, 1998; Suler, 2004) may allow posters to demonstrate a sense of power over a relationship they may not be able to accomplish offline. Indeed, these ideas extend further with the idea that the behaviour of others can enhance an individual's self confidence (quote 7).

6: "And most people I delete are underclassmen who think they look cooler when they're friends with older kids. I add them so they stop asking to add me. Then I delete them 🤪 And laugh an evil laugh."

7: "Hahahaha yeah that's pretty funny when you see that going on! It makes me feel a bit better about myself actually."

These feelings of social power translate further. For instance, a higher number of friends may result in a higher perceived popularity, enhancing self-esteem. Indeed, Gonzales and Hancock (2011) suggest that friend requests enhance perceived social competence. Within the data set there were suggestions that some users manipulated their Facebook behaviour to increase perception of their own social standing (quote 8).

8: "Perhaps I'm wrong (I hope I'm wrong), but I have heard people boast about their friend count and indeed belittle others. If I'm wrong, how come: a) People add friends who they barely know, who they don't know at all, or even who they had bullied or been bullied by at school. As has been pointed out, most people's Facebook friends aren't their real friends. b) People take their sodding camera everywhere - even if it is something really ** like a uni visit - purely to post on facebook (I've heard people say "oh this one's for facebook" 😊). c) People talk to one another via wall posts instead of just using the chat function."**

6.3.1.3 THEME 3: SOCIAL EXCLUSION

The Social Exclusion theme discusses the potential for users to feel lonely, ostracised or excluded. In traditional social psychology it is argued that circumstances surrounding social exclusion can dramatically affect how it is experienced. Abrahms, Hogg and Marques (2005) suggest the use of a framework to provide an overview of such exclusion, by exploring the relationship between the excluder and excluded, the level of exclusion and the mode of exclusion. In terms of Facebook use within this data set, it appears socially excluded users are most likely to feel rejected by their network rather than individuals; although the behaviour of individuals may exacerbate this. Indeed, there was not any particular evidence of anyone suggesting they had been intentionally or rather maliciously left out. Instead, extracts suggest that some users feel that Facebook emphasises that they are unintentionally forgotten about by other users. Users discuss their exclusion in several ways. Most noticeably, users identified feelings of exclusion either directly or indirectly. In this instance, direct exclusion relates to users who felt their social

presence on Facebook was ignored. Such instances within the data were frequent (quote 1). Indirect exclusion relates to a more passive form, whereby users feel socially excluded through external activity, for instance through friends' profiles, photos, statuses and events (quote 2).

1: "it's depressing how everyone on there is ignoring me now out of (160 friends) 😞"

2: "I hate the way facebook also mocks you when you haven't been to a big event: '64 of your friends were tagged in 400 photos in the album 'Party of the Year wooh' 😏"

For the above quotes users feel excluded, seemingly as a consequence of Facebook facilitating the discovery of this exclusion. Facebook offers a new slant to social events. For instance in quote 2, the statistical evidence of the number of friends who were invited to the party perhaps emphasises the magnitude of the exclusion, regardless of intention. This statistical evidence when partnered with the public nature of the site provides a unique set of conditions, which you would not necessarily find within the offline environment. These conditions seemingly escalate subsequent thoughts (quote 3).

3: "I can see why it might make people feel lonely or insecure about their social life, as it's so public. It allows you to see how often someone gets tagged in photos of nights out, how often people write on their wall, their Facebook status updates about what a night they had last night etc"

The theme has very close links to the social comparison outcome (Theme 1). The association between these themes has already been noted in previous literature. For instance, offline research has found that jealousy can stem from

perceived social exclusion (Pines & Aronson, 1983). In order for one to feel excluded there must be an element of social comparison, whereby the individual presumes others are not being excluded in the same manner. Social comparison here takes on an element of generalisation, in that a direct comparison to *everyone else* is made. There is a presumption that everyone else is socially included. Such assumptions can be seen in quote 3 above. Nevertheless, one cannot ignore that there was a direct comparison element present in some instances. For example, the following quote (4) emphasises how popularity of others may attribute feelings of loneliness.

4: Sometimes I hate facebook too, some of my friends only have to put a 🙄 or a 😊 on their status and literally 50 people will comment on it. Yet if I put a status up that actually says something interesting I'm lucky to get 1 comment. I think it's really sad that some people just sit on facebook all day commenting on people's statuses to be honest but it does kick you in the face a bit when it seems like no one gives a ** about you."**

There is a wealth of literature linking feelings of social exclusion with well-being. Abrahms et al. (2005) suggest that perceived exclusion can result in a high number of negative psychological effects, including risk to one's self-concept, lowered self-esteem, anger, emotional denial, and cognitive impairment. Depending on the strength of such perceived exclusion, these outcomes could have detrimental effects.

6.3.1.4 THEME 4: SOCIAL DETRIMENT

Some users referred to the idea that Facebook may have a negative impact on their existing offline social relationships. The degree of negativity appeared to

be varied, with some users finding their friends' Facebook behaviours annoying at best, or, in some instances, contributing to the dissolution of offline relationships.

At the minimal end, annoyance was drawn from status updates. Many posters found status updates pointless or too revealing. Whilst for others, it was the frequency of updates that caused the most annoyance (quote 1). The importance of impression management is highlighted further. Users discussed how simple Facebook information can result in negative impression formation (quote 2). This may affect any potential offline relationship. The importance of statistical data, such as number of friends, on impression management has already been highlighted in past research (e.g. Tong et al., 2008).

1: "And then i get annoyed at people's status updates and think *"oh just SHUTUP and stop being so pretentious, i don't care and i hate you hate you HATE YOU."*

2: "And to be honest if I went on someone's facebook and there were only 30 odd photos I'd think they were a social recluse. And if they have 6,000 or more, a camera whore."

Such annoyances may result in de-Friending, which may escalate offline relationship issues. The denial or destruction of friendship connections can ultimately reflect back to the ideas of social exclusion within Theme 3. Feelings of ostracism are evident within the quotes below. However, such quotes are included within the current theme due to the personal undertone surrounding the discourse. It is clear from quotes 3 and 4 that acts of de-Friending can have a large negative impact on the specific relationship involved, forcing users to re-

evaluate their friendship. Again, it is the visual evidence of cutting someone out of a network that perhaps exacerbates feelings of deliberate or malicious behaviour; whereas a lack of communication in real life may go unnoticed (Tokunaga, 2011). This idea has previously been picked up by Wellman, who suggested that such evidences enhance social reactions; whilst an offline comparison would remain ambiguous. As an analogy he quoted "People don't call you up and say, 'Hey, we're not calling you.'" (Davis, 2010).

3: "being deleted off someones facebook is the ultimate snub."

4: "I don't get why so many people are saying it's pathetic, I've felt a bit hurt a couple of times when I've sent friend requests (which I don't do very often & only to people who I think know me well enough to accept) and the person has rejected me"

A large proportion of the relationship detriment theme relates to romantic relationships. Many users had strong, uncontrollable feelings of jealousy surrounding their partners' Facebook activity (quotes 5 and 6). Such a response echoes the findings of Muise et al. (2009), who suggest that Facebook can increase feelings of relationship jealousy through increased use. This is due to the presence of open access information, which creates a feedback-loop that prolongs feelings of jealousy and entices users to check back for more information. Support for this theoretical feedback loop is particularly evident in quote 5.

5: "On top of that don't you think facebook causes lot's of arguments in relationships? For example you notice your bf/gf commenting on other guys/girls on facebook and you make more of it then you would if they had

stopped to talk to them in the street, because it's there in black and white and you have time to think it over and over."

6: "Seriously that website is *designed* to breed paranoia in relationships or friendships, and actually encourages people to e-stalk others."

The archived nature of every Facebook communication type is one of the key differences between this form of communication and an offline counterpart. Some quotes specifically picked up on how visual information relating to a user's behaviour on Facebook can have a strong impact on other people's perceptions of that information (quotes 7 and 8).

7: "Yeah Facebook just makes it worse, constantly asking people if anythings going on 'No,no' then see-ing pictures of them the next day from that night...."

8: "That person who is kissing ass, happens to be what you THOUGHT was your best friend...and the other person they are kissing up to, just so happens to be the same girl who tried to ruin your reputation and got into a fist fight with you for NO good reason."

6.3.1.5 THEME 5: SOCIAL IMPACT

Users often discussed their on- and offline social life in comparison to each other. This theme is strongly linked with all others themes. Indeed clear associations will be made throughout the narrative of this theme. However, the direct discussion available is worth considering independently due to its saliency throughout. The theme heavily draws particular attention to the Enhancement vs. Compensation debate (Zywica & Danowski, 2008), of whether those who are socially skilled or unskilled most benefit from Facebook. This

particular part of the theme heavily associates with 'offline circumstances' (Theme 8). Support is provided for both sides of the debate (enhancement: quote 1 ; compensation: quote 2). Furthermore, the theme develops the debate further and discusses Facebook as a complimentary social environment or as a substitution or replacement for offline socialisation. For example, quote 3 highlights how social compensation can lead into social replacement.

1: "I think they take pictures when they go out purely to go on fb. But if fb didn't exist they wouldn't just sit at home doing nuffink."

2: "So true. In fact, it's probably the other way round. People who don't upload pics to facebook probably have a better social life because they are too busy to actually find time to upload the pictures!"

3: "Facebook makes people think they have loads of friends and are socialising more, but what they're actually doing is sitting in front of a computer."

Aside from this debate, many users felt that Facebook afforded them an enhancement to their social life, which would not be available previously. Some of these ideas have already been discussed in Theme 2 (Social Empowerment). The practicalities of the site allow for increased shared intimacy between users, which facilitates the development of offline communication (quotes 4 and 5).

4: "Find out the surnames of people you've met at uni and add them, then just get chatting. I've made a few friendships stronger by talking to them over the internet."

5: "I like facebook because its allowed people to know each other more

intimately , than if you would do if facebook didn't exist"

However, others highlight the detrimental effects it may have on one's offline social life. In this instance, discussions were not about specific users, as in Theme 4 (social detriment). Although certain individuals are discussed, these extracts refer to more generic comparisons discussing the negative impact of Facebook on one's offline social life. More specifically, the extracts discuss how Facebook usage is merging with traditional socialising. Facebook is being brought into conversation and users are uploading and updating their Facebook whilst socialising with others, causing suggestions that Facebook is taking over or destroying traditional offline socialisation (quotes 6 and 7).

6: "I swear to God my friends do this, they spend more time taking pics no one's going to look at than actually having a fecking party 🙄 I almost feel like saying "NO ONE IS IMPRESSED BY YOUR SHENANIGANS" 🤪"

7: "Yeah nowadays most pictures are taken purely to show off how 'good' their 'social life' is. The most retarded thing about people who live on Facebook (which is the majority of students these days) is when they're out say at a party or something they say how good the party is...on facebook!! If the party's so *** good then why are you on facebook you tard!"**

6.3.2 INFLUENCING THEMES

This category of themes is made up of perhaps the most frequently discussed codes throughout the discourse. These themes were often discussed within the context of other outcome themes and therefore it is hypothesised that they could be potential moderating factors that may influence or add to how

Facebook is experienced. The themes described here will show the explicit nature in which ideas were discussed with reference to potential relationships with the outcome themes outlined previously. The category is made up of three themes, which have been entitled as *Opinions of Facebook*, *Perceived Control* and *Offline Circumstances*.

6.3.2.1 THEME 6: OPINIONS OF FACEBOOK

The integration of Facebook within one's existing social life seems to impact how people discuss the consequences of Facebook. Those who see it as a serious method of communication and of equal importance to more traditional avenues of communication were more likely to describe Facebook outcomes in a more severe manner; whereas those who emphasised that the site is not serious were more likely to criticise others for their 'extreme' description of consequences and often responded with sarcasm (quotes 1-3). These ideas reflect Valkenburg et al.'s (2006) observations that those more invested in Facebook will be more affected by it in terms of well-being.

1: "FB really is the root of all that is unholy and self destructive. Should be abolished!"

2: "Those people who take Facebook more seriously than real life should be shot. Twice."

3: "🤖 Facebook is serious business."

In response to many of the negative outcomes discussed in the previous themes, users sometimes argued that the individual's investment and dependence on Facebook was clouding their judgement of its importance (quotes 4 and 5).

4: “Its just a website you whiner. I doubt anyone really thinks that absolutely everyone on their facebook friends list is their bosom buddy. Get a grip, you sound so bitter.”

5: “Just because they delete you it doesn't mean they don't like you. Again this is where reality and the internet blur together for some people. Some people have trouble sorting out which is which.”

Furthermore, there were many specific instances suggesting that those who saw Facebook as a trivial medium were more likely to experience positive responses to some of the potentially negative outcomes in response to the Facebook phenomena discussed previously. For instance, quote 6 is made in response to some of the descriptions of negative consequences as a result of de-Friending (as found in Theme 4).

6: “Oh my God, I agree with <name> get OVER it. I've not only been rejected by people, I had an ex-colleague BLOCK me last week because I added one of her friends (who I knew through two other people, including a cousin), and she simply could not hack the fact that her friend liked me and wrote on my wall practically every day 😊”

The idea that Facebook is a fake or insincere environment was also extremely popular within the data set. A part of this fake environment revolves around the insincerity of Facebook members. Those that saw Facebook as a fake or insincere environment tended to post negatively in regards to their general experience. From Theme 4 (social detriment) it is already clear that those who find insincerities between one's Facebook behaviour and actual behaviour react negatively to it. Similarly, those who perceive Facebook to be a fake

environment were more likely to be frustrated by the behaviours of others (quote 7) and generally disliked the site (quote 8).

7: “I couldn't care less about people going out and getting hammered - I do it myself! - but why the need to stage photos? In some of them, they're obviously not even really drunk.”

8: “I think for many people, this is how the noughties will be remembered - as a decade of false pretences and people pretending to be something they're not... The fake-facebook-photos completely epitomise that.”

6.3.2.2 THEME 7: PERCEIVED CONTROL

This theme relates to discussions surrounding the level of control that users believe Facebook allows or offers them. Ideas of control relate to both ‘physical control’ (i.e. limitations of the site to be manually controlled such as through privacy and application settings), and more frequently, ‘social control’ (i.e. societal pressures stemming from social constructions and social norms of acceptable or appropriate Facebook behaviour). There seemed to be a definite distinction between users in regard to the level of control they believed they had and how this affects their Facebook experience. A distinction akin to that of External vs. Internal Locus of Control of traditional social psychology (Rotter, 1966) appeared to be evident, whereby some users believed their Facebook behaviour could be controlled thereby affecting the outcome of use, whilst others felt that external constraints forced Facebook to be used in a particular way resulting in an outcome they could not control. The need for control has already been highlighted as a sought gratification of Internet use generally (Angleman, 2001).

Within cyberpsychological research and media reports on Facebook, privacy controls are often cited as a major concern (Barnes, 2006). Research in this area suggests that users have strong views about their privacy rights and the control they should have, but a large discrepancy appears to exist when this is compared to their behaviour and the privacy terms they are willing to accept when using Facebook (Debatin, Lovejoy, Horn & Hughes, 2009). As expected, issues surrounding privacy were raised by forum users with concern. Some posters perceived their privacy was threatened by Facebook and tended to react negatively to this (quotes 1 and 2). Indeed the public nature of the environment becomes unnerving for some and sometimes has a suggestive relationship to the potential outcome themes already described. For instance, in quote 2 the saliency of privacy is linked with potential aspects of relationship detriment.

1: "I hate how if you meet someone in a club and they know your first name and where you stay they can add you on facebook, it makes me feel violated"

2: "It makes getting into relationships even more nerve wracking and intimidating as it has to be announced to the whole world"

In extension to this, many users were unhappy with the practical controls that Facebook offers its users, in terms of applications and features (quote 3).

3: "I'm also beginning to dislike that every time I open Facebook I get adverts inviting me to a "gay/bi camping trip" (pun intended?!), or to "Club Be Yourself", or asking me whether I'm "19 and still single?". I am, and I don't like to be reminded of the fact by a picture of a girl with immensurable breasts at a stupid angle. I don't like the use of groups for

mass messaging. I don't like how I joined a group recently, then posted a thread, then got flamed by cliquey group admins for weeks on end (filling up my notifications panel every day so I couldn't see what interesting things had happened), despite having asked Facebook twice to remove the thread. I dislike the way I'm constantly invited to add SuperWall, even though from what I've seen on other people's profiles it's largely just full of obscene pictures. I don't like how people can tag photos of me without me even knowing about it until I check Facebook / my emails - what ever happened to asking for permission? Even if I detag it, they can still delete the photo and re-upload it and retag it; even if I remove them as a friend, they can still add my name to stuff. I get adverts for penis enlargement pills via wall posts from my friends who have seemingly managed to pick up some Facebook-related virus. I could go on."

However, there was a strong perception by some users that others were overestimating their lack of control, resulting in negative consequences.

Essentially those who took the view that privacy and applications could easily be controlled on Facebook seemed to link such control with more favourable outcomes (quote 4).

4: "Frankly, if Facebook makes you lonely/ruins your life/whatever, it's YOUR OWN DAMN FAULT. The only reason it has that effect on you is because YOU let it. Stop blaming your own failings on other things and start taking responsibility for yourselves." "So many people complain about crap on facebook and how terrible it makes them feel inside, but they forget that the more and more facebook develops, the more and more choices it gives us, there's very little you're exposed to on the website that

you have no choice in removing or making it so that you're never exposed to it again."

Issues of Friending were also discussed throughout the data set. Some users paid little attention to Friending, whilst others seemed to be searching for more definitive guidelines on appropriate Friending norms. Often users discussed this in terms of 'the rules of Facebook', as if they were seeking validation for a correct way of usage. Indeed, thread topics such as '*Adding People on facebook*' promoted the discussion of such rules in an explicit manner (quotes 5 and 6). This fits well with current notions of netiquette. Traditional offline etiquette refers to a standardised code-of-conduct used to facilitate social interaction. Netiquette refers to the transference of this to the online environment. In a thematic analysis aiming to explore netiquette in social media, Ballam and Fullwood (2010) found that the fluidity of personal boundaries and control resulted in clouded judgements of acceptable behaviour. As such, social behaviours are less stable in how they are viewed. As an example Ballam and Fullwood describe how photo tagging can be seen as rude by some users, yet as a sign of friendship by others. Users appear to be checking their behaviour with others to try and establish appropriate social norms and a safe means to interact on the site. The importance surrounding the need for users to establish these norms has already been highlighted in previous research (e.g. Tokunaga, 2011).

5: For me, at least, facebook is a pretty personal thing and I don't allow people 'I see but don't know/speak to' add me. I only ever add people if I get along with them and have spoken to them enough that I myself am comfortable having them on my account. I hate those people who add

others just to up their friends count or just because they 'once made eye contact and a friend's brother's uncle's house party'."

6: "I don't get your argument (as far as it can be called one). Facebook is a social networking site, not a log of your best friends in the whole world forever and ever, amen."

Previous literature has suggested that non-users tend to feel that SNS networks are reserved for actual offline friendships. However, in reality users employ an open-access network under their own restrictions (boyd, 2006). Within the forum posts it appears that there may be a shift in these restrictions for some users. Whilst it does appear many people employ a loose network structure at first use, some users shifted their position and decided to restrict their Facebook use considerably. Indeed, although many users did not seem to mind having an 'open' network others suggested that they could not consider a more controlled or restrictive network due to existing social constructs of Facebook and fear of social disapproval leading from deviation of this construct (quote 7). This concurs with boyd's (2006) suggestion that users often feel constrained by their Friendship choices and will often accept requests to avoid social embarrassment. Furthermore, it echoes offline friendship research. Goffman (1967) discusses how in certain circumstances friendship may exist in order to 'save face' and this seems to echo within the data set. Indeed, many users suggested that a declined or deleted friendship would lead to offline relationship detriment. However, there were those who felt very much in control of their network that did not see this as a particular issue (quote 8).

7: I've got a few lads on mine who I didn't realise who they were and would now like to delete them - But I won't for fear of repercussions (they're

rough and they live across the street from my parents, they'd do something to the house for sure)."

8: "Dude none of that ** happens if you are a bit picky... I don't feel scared to press 'Decline' or 'Reject' because it is a space for me and good enough for acquaintances."**

As with Friending, one's perception of how other's view them may have a strict influence on one's general Facebook behaviour and their impression management skills (quote 9).

9: "Plus I have to censor myself because there are several family members in my network. No, 'OMGZZ I'M SO PISSED' or 'I WANT TO DIE LIFE SUKZ'"

In addition to this, many users suggested that they felt they had no control over using Facebook in it's entirety. Many extracts focussed on a perceived fear of social reprimand, which forces individuals to use Facebook (10-12). Indeed even forum posters who did not use Facebook sensed social pressure to join against their will (quote 12).

10: "I agree. In my head I almost think No Facebook = Social Recluse."

11: "I was thinking of deleting but then that would make me panic even more tbh. Wondering whether people are bitching about me and wondering what they are all getting up to post-graduation."

12: "I reckon I'll succumb to the pressure and fear of social excommunication in the future"

However societal pressures were not the only discussed restriction. Many users described their lack of control in terms of Facebook addiction. The existence of

Internet addiction has gained increasing attention in the last decade. In a review paper of previous qualitative literature, loss of control and dependence on sociability were cited as two defining features of addiction (Douglas et al., 2008). Therefore, as Facebook is an online socialisation platform, extracts relating to such addiction may be expected. Many users could not articulate their reasoning for using the site despite its negative consequences, other than compulsion (quote 13).

13: “It’s all very well saying “well just don’t go on it” but it’s not that straightforward, I actually have an almighty (and lame) urge to go on it, I just have to, it’s like a force from above making me go on it.”

In some instances, this compulsion was discussed in terms of Facebook stalking as mentioned previously in Theme 1. Many users felt they had no control over their monitoring behaviours and disliked their lack of control (quote 14). Such consistent use may be reinforced by Muise et al.’s (2009) feedback loop mechanism, used to explain Facebook jealousy (as in Theme 4). The user feels compelled to check a particular person’s profile as their curiosity was gratified the last time they looked. However, on doing so they find more information that promotes curiosity further. Indeed Helsper and Whitty (2010) suggest that individual’s are motivated by a need to seek out information on their partner, even if such information is threatening to their relationship.

14: “Yes!!!! I especially like to torture myself by looking at the facebook pages of either A. girls I dislike yet envy (or maybe envy thus dislike) and looking at all their comments to see how adored they are and all their pictures to see how hot they look, or B. people I generally really admire and look at the cool comments they get (much more interesting than

anything I would ever post) and look at their pictures to see them surrounded by people who are not me. I swear I was normal before Facebook came along. 🤔”

6.3.2.3 THEME 8: OFFLINE CIRCUMSTANCES

The main focus of this thesis is personality. At this preliminary stage of the research, attention was paid to creating an accurate reflection of users’ experiences of Facebook regardless of individual personality which will be explored at a later stage (chapter 8). However, within the analysis personality and related dispositions such as mood were considered by users as a potential influence of the way they portrayed Facebook. Theme 5 (social impact) has already discussed the Enhancement vs. Compensation debate (Zywica & Danowski, 2008), which explores whether those with socially skilled personalities (such as extraverts) or those with unskilled personalities (such as introverts) gauge most benefit from CMC, and Facebook in particular.

The extracts below discuss the influence of personality more specifically.

Extracts consider the transferability of personality onto Facebook (quotes 1 and 2). Generally, users thought that personality directly translates on to Facebook.

1: “People with 500 friends are popular people though. My friend has that many friends on her facebook account, it just means she’s really extraverted and gets on well with many.”

2: “i barely use facebook because i dont feel comfrotble leaving comments because im shy and dont speak to them in real life, except for a few.”

The theme also discussed how offline circumstances in general, aside from personality, will affect experience. Users posted that those who were already

dissatisfied with life in some way, for instance, low in mood, will equally feel this way about Facebook. Thus the implication is that those who are unhappy about their offline life will also be unhappy with their online life (quotes 3-5).

3: “It sounds to me like you're taking your dissatisfaction with your life and blaming it on the website.”

4: “it is depressing if i'm feeling down already, although generally it isn't - it doesn't bother me that people have fun!”

5: “give annoying/vain people facebook and they'll use it annoyingly/vainly. give normal people facebook and use it normally”

6.4 SECONDARY CODING

The above analysis was completed by a sole researcher. Due to the subjective nature of qualitative data multiple researchers are often advocated to improve the validity of interpretations. As such, a secondary coder was introduced to recode 10% of the original data set in an effort to increase the validity of the analysis. Such a measure is not without its limitations. It is questionable whether a second exploration of the data would be comparable to the original analysis, given the time investment dedicated in the first instance. Following on from this, an analysis based on just 10% of the data may offer misleading results, as themes tend to develop across the data set as a whole. Finally, it is worth noting the difficulty of finding a colleague familiar with the analysis without any prior theoretical preferences. However, it is argued that a validity check is of strong interest given the use of the analysis within subsequent phases of the research. The secondary coder was provided with three threads at

random (consisting of 197 posts). Table 3.2 offers a descriptive breakdown of tentative themes and the codes within these themes highlighted by the secondary analysis.

Table 3.2: Descriptive summary of second coder themes

Themes	Summary
A. Insecurities	<p>Facebook users have either experienced or acknowledged that Facebook is likely to improve the feeling of insecurity and decrease self-confidence in some users. This often had a direct link to unhappiness within their 'offline' lives.</p> <p>Example: "My problem is that when i go on facebook i see mass amounts of people with a great 'buzzing' social life, always goin out and having a laugh....If you look through there photo's theres hundreds of them. Whereas for me i have about 70 photos doing nothing interesting."</p>
B. Accommodating behaviour	<p>This theme relates heavily to Communication Accommodation Theory (Giles, Coupland & Coupland, 1991) whereby individuals adapt their behaviour to the rules of others. Throughout the text there were elements of users admitting to converging their behaviour to fit in with the expectations of others.</p> <p>Example: "Facebook's mainly people I know though so I don't tend to delete people from that, just incase I bump into them a few days later - sod's law"</p>

Table 3.2: Descriptive summary of second coder themes

Themes	Summary
C. Restricting Facebook friendships	<p>Many users made a clear distinction that Facebook was an external close-knit social environment. These users felt that their Facebook environment should be restrictive to ensure it reflects their real life social circle. This makes Facebook more tailored in the sense that they can avoid ‘annoying’ status updates and app requests. These users feel comfortable denying a friend request as such an act does not reflect the end of an online friendship, or indeed everyday interaction. This theme reflects Suler’s (2004) idea of dissociative imagination, in which the Facebook world is seen as a game.</p> <p>Example: “But I’ve deleted people myself, before - simply for the reason I’ve stated, that I try to keep my number on the low side...”</p>

Although the themes are labelled quite differently, clear parallels can be seen within the content of both analyses. Table 3.3 highlights the main similarities between these analyses. Given the limitations discussed previously, the secondary analysis seems relatively compatible with the original themes. The full scope of the initial analysis has not been uncovered. For instance, social impact and social empowerment were not touched upon. However, the results on the whole seem positive given the limited data sample used.

Table 3.3: *Comparison of themes between first and secondary analysis*

Theme	Similar themes from original analysis	Similarities
A. Insecurities	Social Comparisons	The first theme reflects several of the original themes in a direct and overt manner. However, the theme focuses on the negativities and doesn't seem to reflect the dimensional descriptions from the original context. The original theme did highlight, however, the explicit relationship between these themes. Therefore, it may be argued that this new theme is a higher order theme evolving from the cross-references already explored.
	Social Exclusion	
	Offline Circumstances	
B. Accommodating Behaviour	<i>None</i>	The second theme does not seem to reflect any of the original themes. Such a theme could perhaps be considered in light of the 'Opinions of Facebook' theme given that such behaviours may reflect a perception of serious interaction. Those showing accommodating behaviours may be seeing Facebook in a more strategic manner.

Table 3.3: *Comparison of themes between first and secondary analysis*

Theme	Similar themes from original analysis	Similarities
C. Restricting Facebook Friendships	Social Detriment	Again, the final theme may be considered hierarchical encompassing elements from three of the original themes but in a more direct manner than theme A. Within the original analysis there is a direct discussion of Friending, the rules of Facebook and the impact of such acts. This theme does not cover the range of sub ideas within the original analysis but can be seen to mirror similar ideas.
	Perceived Control	
	Opinions of Facebook	

6.5 DISCUSSION

The current study aimed to provide clarity of perceived user experiences and outcomes of Facebook use, as identified through an open, generalised forum. Eight themes emerged, falling under two overarching categories: social outcomes and influencing factors. It appears that outcomes of Facebook use vary, with potential benefits or drawbacks. Rath and Harter (2010) stipulate that an individual's personal relationships and social contacts will impact on their well-being. Moreover, Fowler & Christakis (2008) emphasise the importance of an individual's extended network. This has great implications when we consider that Facebook enables users to view their entire social network and linked networks in a visual manner. Facebook may enable faster sharing of good news, which may increase well-being. However, the visual saliency of the site enhances negative impacts which may go unnoticed in a face-to-face context. As expected, theme outcomes have a direct relationship to well-being and these have been briefly discussed where appropriate. The results lend support to Tyler's (2002) assertion that CMC outcomes reflect those of offline social interaction, with the outcome themes mirroring past social psychological theories (i.e. similarities are drawn with Social Comparison Theory, Social Exclusion, Social Capital, Locus of Control, etc.). Furthermore, themes reflect current literature surrounding Facebook outcomes. For instance, the analysis highlighted similar themes to Johnstone et al. (2009); ideas surrounding social exclusion, fear of rejection and one's need to belong were mirrored within both data sets. Also, identification of certain items (such as uncertainty surrounding social norms and Friending) held strong similarities to the work of Tokunaga (2011), which emphasises the validity of results.

Themes are not mutually exclusive and strong relationships between discussed codes are noted. For instance, there is a strong cross-over between ideas of social exclusion and relationship detriment, as perceptions toward the magnitude of such exclusions may reflect on how specific relationships are then perceived. For clarity, the overlap of these ideas has not been discussed at great length. The focus of the current chapter is to draw out key themes for later analysis.

6.5.1 INDIVIDUAL PERSONALITY DISPOSITIONS

Although personality has not been directly explored within this part of the study, assumptions can be made regarding a potential relationship. Figure 1.2 visualises a prospective theoretical link between the themes outlined and personality disposition in light of the theory designed. It is supposed that one's personality may ultimately affect their stance within the influencing factor themes. This will consequently affect how outcome themes are perceived. However, personality may also affect how individuals react to these outcomes. When viewing results in regards to previous chapters and literature tentative implications can be drawn regarding potential salient issues for each personality type.

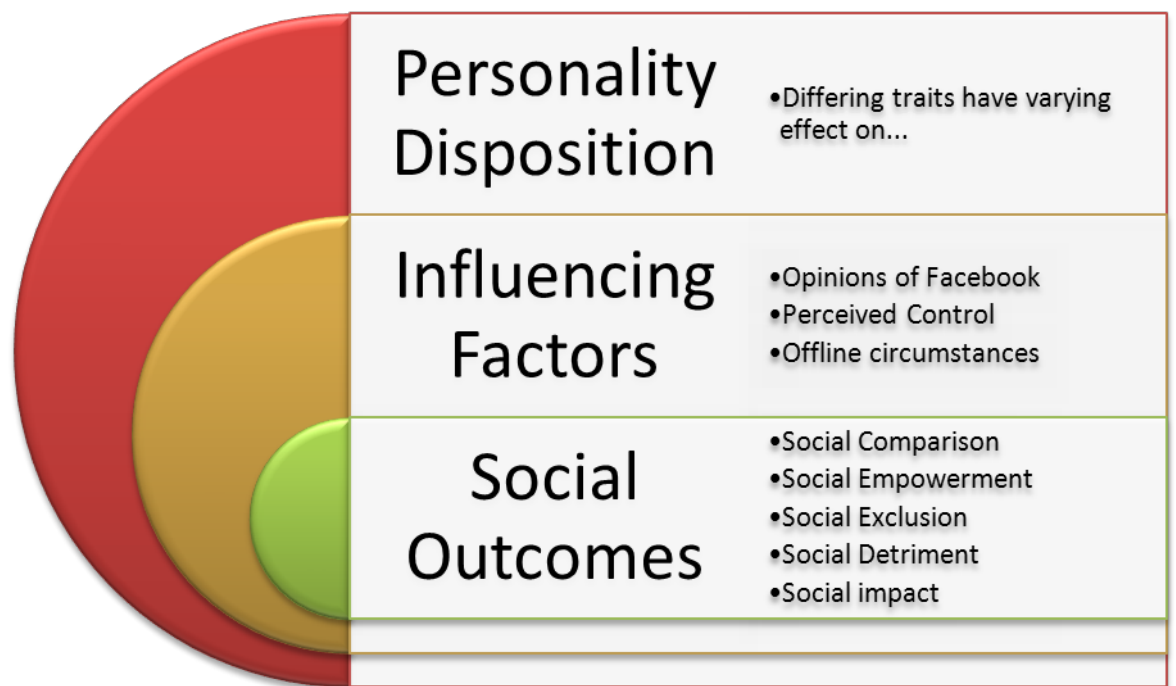


Figure 1.2: Visual representation of theoretical themes in relation to personality

From the previous chapters high sociotropy scorers seem to show a high level of active engagement with SNSs. Thus, they may be more likely to view Facebook as a serious social platform. Moreover, their fear of social embarrassment may promote a perceived lack of control governing use. As an example, many extracts referred to monitoring behaviours (e.g. **“I was thinking of deleting but then that would make me panic even more tbh. Wondering whether people are bitching about me and wondering what they are all getting up to post-graduation.”**). Monitoring behaviours were tentatively linked to sociotropy in chapter four. Furthermore, these types of behaviours have previously been associated with increased loneliness (Burke et al., 2010). Therefore, if sociotropic scorers feel compelled to behave in particular ways and pay high attention to Facebook occurrences, these users may be more prone to experiencing some of the negative consequences outlined. Furthermore, these consequences may be more detrimental to high scorers due to their predisposed reaction to negative social events. For instance, as sociotropic individuals want to fit in with others it stands to reason that these users may be more affected by the negative consequences of ostracism. In a study exploring cyber-ostracism, individual differences were found not to affect the strength of resulting ‘pain’, but rather the longevity of such pain (Williams, 2007). Similarly, Zadro, Boland and Richardson (2006) highlighted that those with social anxiety tended to experience a longer-lasting negative reaction compared to lower scorers. Thus, sociotropic users may not experience any more pain than other users but may give the situation more emphasis in their everyday lives. However, sociotropy’s vulnerability to depression suggests that high scorers may be more susceptible to depression when their need for social approval is not met. When this is combined with the fact that ostracism is already noted as a potential trigger of

depression (Gilbert, 1992) it is argued that these users may have both a more extreme and prolonged response to perceived Facebook ostracism.

Autonomy is associated with a high need of personal success, and within the previous chapters it is argued that these individuals have a high need for control. The previous chapter suggests that higher scorers show a perceived individuality in their use, and are reluctant to use some of Facebook's secondary features. In light of the influencing factor themes, their somewhat trivial use may suggest that high scorers can benefit from positive experiences of Facebook. However, these users show a vulnerability to depression if their high need for success is not met. Therefore it may be cautioned that high scorers who perceive Facebook as a non-controllable environment are more likely to experience Facebook negatively.

Extraverts may be prone to experiencing Facebook in a positive manner. From previous research, high scorers have been found to make more downward comparisons than introverts (VanderZee, Buunk & Sanderman, 1996).

Furthermore, extraverts will have a more active social life offline and thus may already be socially content. As one's offline circumstances may affect their Facebook use, these users may be more likely to approach Facebook in a positive manner.

Neuroticism has previously been associated with a higher need to make social comparisons. Furthermore, higher scorers are more likely to make upward comparisons and more likely to suffer negative consequences as an implication of these consequences (VanderZee et al., 1996). However, this would seem counterintuitive as these users are motivated by escapism, theoretically using Facebook as a distraction or source of support. Chapter five suggests that these

users are more likely to remove items off their wall. Thus if these users have a high sense of control, they may be less likely to experience such comparisons.

Psychoticism with its association to anti-social behaviour may be less inclined to experience many of the social outcomes listed. It is suggested that these users do not value Facebook as a social environment and are therefore less likely to become invested in the site. Furthermore, findings from the previous chapter suggest that these users are less inclined to feel guilty for de-Friending individuals. Thus, these users are less likely to fear social reprimand over their Facebook behaviour. If they perceive a higher level of control and view the site as a trivial space the results above suggest that high scorers will less likely be affected by the negative outcomes outlined. However, due to their anti-social characteristic, it is unlikely that these users will feel empowered by increased community support. Therefore, their attained level of positive outcomes in terms of social well-being may also be minimal. However, this does not mean these individuals cannot benefit from the site.

It should be emphasised that the above implications only draw upon personality in a theoretical manner. For instance, it cannot be said that sociotropic individuals feel ostracised by Facebook. Rather it is warned that such occurrences are possible and may have a very negative effect on well-being. Although it appears logical that personality would be associated with specific experiences, other variables may have more importance. For instance, younger users may be more likely to focus on positive outcomes than negative ones (Valkenburg et al., 2006); whilst females over males may be more likely to undertake monitoring strategies (Helsper & Whitty, 2010). In terms of variables outside the scope of this thesis, Buunk (1997) argues that attachment style and

birth-order are more important than personality in the prediction of experienced jealousy. Furthermore, the offline circumstances theme argues that current state variables, such as mood, will also impact on use.

6.5.2 LIMITATIONS

As an existing data environment is used, sampling issues are apparent. For the nature of this thesis it is perhaps worth considering the personality of users on the forum, as this may in itself bias the data collected. It is useful at this point to refer the reader back to the literature outlined in the introduction (chapter 3).

For instance, it is suggested that introverts may be associated with a preference for more anonymous forms of CMC, which would incorporate forum usage.

Therefore data may be biased from an introvert perspective. However, the generic nature of the forum currently studied covers both serious and mundane topics which may attract a variety of personality types. Furthermore, the forum's ability for usual posters to switch to an anonymous alias may alleviate the influence of personality, through encouraging more open postings (White & Dorman, 2001).

The responses in this study were restricted to those on only one forum and dependent on the search terms used to find threads; although search terms were deliberately left vague to ensure a representative sample of threads were retrieved. This searching method may seem minimalistic, yet previous research has also tended to look at only one forum at a time (e.g. Malesky Jr. & Ennis, 2004; Malik & Coulson, 2008) due to the wealth of information available within each site. Following data analysis other forums were informally searched to ensure no dominant themes had been missed. Although not explored extensively, search results mimicked those within the current study. It was felt

that the further research being undertaken with the following two chapters would negate the need for thorough triangulation.

Whilst the general sample demographics were noted, individual participant contributions were not tracked across or within threads and specific demographic details were not collected. Therefore comprehensive sample information cannot be assumed. However, this will be of more importance during the next chapter.

Such strong outcomes of Facebook may not have been expected, but it is worth considering that it is probable that such outcomes in their extreme form will only be experienced under certain circumstances, or over a long period of time.

Due to the voluntary participation of a forum discussion, only those with a specific interest in the topic may be likely to take the time to reply.

Furthermore, the themes were made up of both positive and negative counterparts. Currently it is unclear how far these outcomes affect Facebook users in a generalisable manner. The number of individual participants within this study was not calculated, and as such participation may have been made by a small minority of the site compared to the forums global membership statistics. Moreover, previous research suggests that negative social events hold higher saliency for individuals compared to positive events (Baumeister, Bratslavsky, Finkenauer & Vohs, 2001). Thus threads may follow a potential negativity bias. However, even if such outcomes are minimal and only experienced by a select few, exploration is still warranted and can be viewed on a continuum of potential outcomes. Indeed, Tokunaga (2011) suggested that severity of effects from negative outcomes may depend on the rationalisation of

such outcomes. Thus severity may depend on level of external attributions made. This in itself will reflect personality types.

Finally a word of caution should be made regarding reliability within the context in which extracts were taken. First, it is worth noting that users may not always represent themselves accurately online. For instance, some users may maintain to have a particular view for the sake of discussion. Unfortunately there is no way of monitoring users are who they portray themselves to be. Second, the textual nature of CMC provides difficulties in interpreting the poster's true intentional form. Reid (1995) argues that the loss of context online may lead to inappropriate assumptions within qualitative analysis. For instance, it is harder to detect sarcasm in a purely textual response. Although effort has been taken to ensure quotes are provided in an accurate context, misunderstandings may be present.

6.5.3 CONCLUSION

The current study has offered a unique exploration of eight key themes relating to student users' perspectives on the social experience found on Facebook. More specifically, the results highlight a number of positive and negative outcomes which impact upon well-being. Facebook has the potential to detriment self-esteem through upward comparisons, and increase social rejection through the presence of 'visual evidence' and the sustainability of a negative feedback loop. Furthermore, these may result in a negative impact on one's existing social network. Yet, downward comparisons and social power have the potential to boost self-esteem; whilst the sharing of good news, community involvement and nostalgic elements may increase mood and happiness, and perceived social support. The implications of these ideas on the individual may be a by-product

of their opinion of Facebook, their perceived control, and their offline circumstances. The discussion details a strong interpretation of how the results may impact the individual in light of their personality predisposition. On its own, the chapter provides an overview of potential implications relating to Facebook use. However, without further exploration it is difficult to determine the direct relationship between personality and Facebook experience as an alternative social environment in its entirety. In order to do this, the next chapter will utilise Q Methodology to summarise key viewpoints of Facebook, based on the above findings. The analysis of fundamental viewpoints will allow quantitative exploration into how personality types experience and perceive Facebook, by pinpointing specific issues out of the above themes that are most relevant or important to them. Thus, this chapter provides a preliminary starting step for the following two chapters to explore these outcomes in a quantitative manner.

CHAPTER SEVEN: A Q-SORT APPROACH TO ASCERTAINING PERSPECTIVES OF HOW FACEBOOK IS EXPERIENCED (PHASE 3.2)

7.1 INTRODUCTION

A previous criticism of the uses and gratifications approach stipulates that the audience's perspective and perception of the way they experience media is rarely considered (Lometti, Reeves & Bybee, 1977) despite offering valued insight into how motivations and behaviour correspond. The current phase of research aims to address this criticism. Following a thematic analysis of forum posts identifying users' attitudes concerning the Facebook experience, distinct coding patterns and themes surrounding potential outcomes of Facebook have been highlighted (chapter six). However, themes were taken from isolated extracts and therefore despite an overview of ideas the inter-relation between these themes has not yet been ascertained.

By establishing an association between personality and user experiences of Facebook a better understanding of the implications of use can be sought. Thus both potential drawbacks and benefits of engaging with social networking sites for those of differing personality profiles can be discussed. When combined with the rest of the thesis (i.e. findings surrounding why users say they use social networking sites, and actual usage in terms of profile construction and feature uptake), the results will allow practical recommendations towards site design and potential at-risk usage.

7.1.1 PROFILING USAGE

The usefulness of profiling users is of high importance in academia as well as in practice (e.g. Alarcón-del-Amo et al., 2011; Hargittai & Hsieh, 2010). Indeed, several studies have specifically focused on profiling types of user (e.g. Alarcón-del-Amo et al., 2011). However, the current study aims to profile certain types of usage, by categorising the results from the previous chapter into potential viewpoints of Facebook.

7.1.2 AIMS & HYPOTHESES

The next step aims to explore these ideas in a more integrated manner by using Q Methodology to profile different potential perspectives of Facebook users on the basis of their experience and attitudes of the Facebook environment. It is hypothesised that several independent viewpoints of Facebook will be established. Furthermore, it is suggested that the influencing themes highlighted from the previous chapter (perceived control, offline circumstances and opinions of Facebook) will differ between each viewpoint (resulting in differing ranking positions), affecting the overall tone of the viewpoints (positive or negative).

7.2 METHOD

7.2.1 DESIGN

The current study relies on Q methodology. Q methodology is gestaltic and holistic in its origin (Brown, 1980), and takes a participant-centred approach (Senn, 1993). Developed by Stephenson (1953), the method relies on an inverted factor analysis strategy to group individuals with similar attitudes on a

given topic, allowing for the identification of key viewpoints concerning that topic. These viewpoints can then be presented as social narratives (Stephenson, 1965). Q methodology gives consideration to both qualitative and quantitative methods, which is thought to enhance its credibility by drawing upon the strengths of both. Furthermore, its unique combination of a sorting procedure (a Q sort) with the use of by-person factor analysis differentiates it from any other methodology. Q methodology follows a set procedure. The decisions and steps taken are detailed within the appropriate sections below.

7.2.1.1 JUSTIFICATION OF Q METHODOLOGY

Q methodology has been adopted across a vast range of subject areas, and its diversity is a strength of the method. For instance, it has been used to explore research in education (e.g. Kerlinger, 1961), health (e.g. Prasad, 2001), consumerism (e.g. ten Klooster, Visser, and de Jong, 2008) and specific participant groups such as gender experiences (e.g. Senn, 1993), amongst others. Furthermore several studies have used Q methodology to successfully explore viewpoints pertaining to computer and Internet usage, in both an academic and applied manner (e.g. Anandarajan, Paravastu & Simmers, 2006; Hogan, 2008; Lee, 2000; Lee & Anderson, 2001). The reliability of Q Methodology has been assured throughout the literature (e.g. Brown 1980).

The thematic analysis opens up a large arena of potential directions the thesis could take. However, Q methodology holds many advantages that warrant its inclusion within the current phase of research. In an exploratory study investigating the differences between the Q sort and Likert scale methods, ten Klooster et al. (2008) note several comparisons between the methodologies. Both approaches are similar in their outlook, with the overall aim of exploring

attitudes by measuring responses from a predetermined set of statements or items. Furthermore, participants for both methods are required to rate or rank these items on a specified scale. However, the methods differ in their outcomes. Whilst Q methodology allows insight into the structuring of participant groupings based on a small number of participants, the Likert scale allows a more comprehensive overall picture, but relies on a much larger sample size. Thus, Likert scales are likely to summarise views on a concept within a quantitative manner, whilst Q studies will result in rich qualitative descriptions of viewpoints. Ten Klooster et al. (2008) conclude their comparison by giving merit to both methodologies; suggesting that both offer concurrent validity. The authors propose that choice of methodology should ultimately relate to the research questions posed and expected outcomes of the investigation.

As the current topic is previously unexplored, the ability to develop strong subjective descriptions will allow for a better understanding of how Facebook is viewed in its entirety. It is worth noting that Q methodology can be combined with further R methodology (such as questionnaires) to quantitatively explore generalisability and associations with external variables (for example see Theiss-Morse, Fried, Sullivan & Dietz, 1992). Thus by using Q methodology in combination with questionnaires, the research offers a much more comprehensive look at the viewpoints explored whilst still allowing an affordance of objectivity to explore personality as a potential predictor of such viewpoints (refer to chapter eight). Therefore Q methodology provides a valuable stepping stone to explore the viewpoints, whilst maintaining a sense of objectivity ensuring its appropriateness for further research.

7.2.2 MATERIALS

7.2.2.1 Q SET (SEE APPENDIX 11.5.1)

The first step of a Q study is to develop a comprehensive array of communication, knowledge and information relating to the particular research question being explored. Collection of this information is known as the *concourse*. It may be developed through any variety of relevant means, ranging from academic literature, to informal media reports, to anecdotal conversations. Information can be collected passively from existing literature (e.g. through newspaper articles) or actively from additional studies (e.g. through focus groups) (Webler, Danielson, & Tuler, 2009). For the current study, the *concourse* was developed through the collection of forum posts discussing the Facebook experience. Furthermore, a literature review was conducted exploring Facebook and links to well-being to add additional insight (chapter six).

Once the *concourse* has been fully developed, it can be further broken down into themes and sub-themes (Brown, 1993). Items representing these themes can then be drawn to develop appropriate statements for the participant to rank during the Q sort procedure. These are referred to individually as Q statements or collectively as the Q set. For the current phase of research a thematic analysis was conducted on the forum posts to guide the creation of the Q set. The use of thematic analysis enhances the rigour of the process to ensure ideas from all potential viewpoints are represented. This has previously been highlighted as a key factor in contributing to the success of a Q study (ten Klooster et al., 2008). For the current study, a similar number of items were taken from each highlighted theme. However, not all statements were extracted directly from the thematic analysis outlined in the previous chapter, in order to escape any interpretation bias. Instead, the highlighted themes were used more generically.

The full original concourse was scrutinised and any quotes relating to the general description of each theme (for instance, coded extracts which were not directly used in the analysis) were extracted; whilst others were created from scratch based on the ideas and interpretations drawn from the thematic analysis. Items that were taken directly from forum quotes were modified to correct grammar, shorten in length, and improve clarity of the point made. Statements were not changed in orientation, thus an even number of 'positive' and 'negative' statements were not sought. Initially over 100 quotes and potential items were selected. These were narrowed down by deleting similar items and adhering to the main themes drawn from the thematic analysis.

The final Q set consisted of 54 statements, each printed on an individual card (size: 50mm x 57mm). This fits current recommendations within the literature, which suggests a benchmark of approximately 50 statements (Dennis, 1988; Donner, 2001; Mrtek, Tafesse & Wigger, 1996), providing a balance between ease of sort for the participant (for instance, low levels of fatigue) and comprehensiveness of the study (Amin, 2000).

Four participants were asked to review the Q statements in a pilot study to ensure items were clear and representative. Participants were encouraged to make suggestions of any potential unconsidered statements; however no suggestions were made.

7.2.2.2 PERSONALITY

As with the previous phases of research, the EPQ-R (Eysenck & Eysenck, 1991) short form was used as a measure of extraversion, neuroticism and psychoticism; whilst Beck's (1983) Sociotropy - Autonomy Scale (SAS) was used

to measure the personality 'modes' of sociotropy and autonomy. Refer to chapter three for more information regarding these scales.

7.2.3 PARTICIPANTS

The participant sample in a Q study is referred to as the P set. Sample size is not of large importance. Indeed, Johnson (1970) argued that a large participant sample should only be employed when analytical adjustments are made, and this has rarely been implemented in past literature. Furthermore, it is noted that Q studies rarely exceed 50 participants (Brown, 1993). Participants should, however, be specifically selected to ensure a representative compilation of opinions (Theiss-Morse et al., 1992) in order to distinguish such viewpoints as factors. The current thesis hypothesises that personality and individual disposition may predict user's experiences of Facebook. As such selective sampling was undertaken to obtain participants of varying personality types and demographics. A two-stage recruitment procedure was applied, which narrowed a sample of 59 to 30 potential participants who were invited to participate.

The final P set consisted of 20 participants, which fulfils expected guidelines stating an approximate 3:1 statement to participant ratio (Webler et al., 2009). Participants were of varied demographics (80% females and 20% males), with an age range from 18 to 45 (*Mdn* = 19). Personality ranges and averages can be found in Table 4.1. All students taking part in the study were offered course credit in exchange for their time in participation.

Table 4.1: <i>Personality score distribution among participants</i>					
	N*	Minimum	Maximum	Mean	Std. Deviation
Psychoticism	20	0	9	2.9	2.8
Extraversion	19	2	12	7.2	3.2
Neuroticism	19	0	12	7.4	4.1
Sociotropy	19	21	112	71.5	24.0
Autonomy	19	40	90	71.3	15.8
* Not all participants accurately reported scores for all factors					

7.2.4 PROCEDURE

First, an opportunity sample was sought to conduct initial personality testing. Attendants at an undergraduate psychology lecture were approached and asked to participate. As part of their original consent form participants were notified that only a selection of individuals would be invited to participate in the full study. Furthermore, they were notified that at no point would they be given feedback about reasoning behind selection. During this initial stage, participants were given the EPQ-R short scale and the SAS in order to ensure a range of personality profiles were selected for the Q study. In order to contact participants for the second phase of the study if required, a contact information sheet was also included, asking for a current email address and student details. Furthermore, each participant was provided with an ID number so that personality scores could be tied to future correspondence regarding the study. Following data collection of this initial sample, personality data was scored. The three highest and lowest scorers from each personality trait were contacted to request participation in the second part of the study. The invitation request was repeated three times in an attempt to increase participation rates (Heberlein & Baumgartner, 1978). The final invitation specified an end date for participation.

As expected, not all respondents replied to the invitation requests. Interested participants booked into individual timeslots.

On arrival, participants were provided with a second information sheet and consent form, and given general instructions to complete the Q sort. It is noted that the Q sorting procedure can be challenging and demanding for participants previously unaware of the method (Wood, Griffiths, Derevensky and Gupta, 2002). Therefore, rather than relying on these instructions the researcher introduced and guided participants through each stage of the Q sort process. Q methodology follows a standard procedure according to its theoretical positioning (e.g. van Exel & de Graf, 2005; Watts & Stenner, 2005), and such guidelines were followed within the current study.

As part of the Q sort, it is important to provide an appropriate sorting instruction to guide participants to the type of analysis required. This is known as the 'Condition of Instruction'. The wording of the instruction can have fundamental effects to the way the Q sort is conducted. For instance, asking participants to sort the items in accordance with their viewpoint may lead to very different outcomes than if participants were asked to sort items in a way they expect others to think. For the current study, participants were provided with the instruction: 'Thinking of your experience of Facebook, to what extent do you agree/disagree with the statements provided'.

First, participants were asked to pre-sort the Q statements based on their initial 'gut feeling' of 'agree', 'disagree' and 'neutral/unsure'. Statements were printed on individual cards, and randomly numbered. These were presented to participants in a random order.

Once all statement cards had been initially sorted participants were introduced to the sorting grid. The grid ran from a scale of -5 to +5 and allowed space for all 54 statements under a quasi-normal distribution. The size of the distribution matched previous recommendations (Mrtek et al, 1996). This particular distribution was used to force participants to be selective in their item arrangement and ease accurate interpretation. To ensure participants considered their own personal point of view, the scale was labelled 'Least like how I think' (disagree) to 'Most like how I think' (agree) at each extreme. Participants were first asked to arrange their pre-sorted 'agree' statements in order on the right-hand side of the grid. Once they were happy with this arrangement, they were asked to arrange the disagree statements on the left-hand side of the grid. They were asked to complete the grid by filling in the remaining neutral cards.

Participants were given time to review the grid and encouraged to move items if they wished to do so. With help, they were then asked to record their confirmed statement order on a scoring sheet using the identity numbers given on each statement (refer to appendix 11.5.2 for an example of this scoring sheet).

Throughout the Q sorting procedure, participants were encouraged to openly discuss their view on the statements, and verbalise their thought processes. Such thoughts were noted with the participants' permission; however, despite prompts participants struggled to articulate their reasoning whilst conducting the sort. Following completion of the Q sort, participants were also asked a series of follow up questions to further establish their viewpoints and opinions of the items. These questions may be found in appendix 11.5.3, but were asked in a semi-structured manner, depending on the participant's responses. Full

transcriptions were not taken. Rather, responses were recorded informally in note form.

7.3 RESULTS

Q Methodology analysis relies on a form of inverted (by-person) Factor Analysis to group similar viewpoints. The inverted status of such analysis refers to the grouping of participants as opposed to Q statements, which are re-considered as cases. Q sorts were analysed within PQMethod (Schmolck & Atkinson, 2002), a freely available programme specifically designed for Q methodology analysis. The programme helps guide analysis by calculating intercorrelations between Q sorts in order to group similar participants into an idealised grouping. The software automatically creates a comprehensive result summary, allowing the researcher to easily identify and interpret such 'idealised' viewpoints. The output summary includes a breakdown of key items for each viewpoint, comparisons of statements across viewpoints (such as identification of consensus and distinguishing statements), and details of intercorrelations conducted. Generally, three or four factors can be expected to be extracted, with analyses rarely uncovering more than seven stable viewpoints (Stephenson, 1982).

PQMethod allows the user to choose the type of factor analysis required. For the current analysis Principal Component Analysis was chosen over Centroid Analysis, whereas Varimax rotation was chosen over manual rotation. Whilst Centroid Analysis focuses purely on communalities, Principal Component Analysis also accounts for specificity (Webler et al., 2009). The difference between such methods in practice is often negligible (McKeown & Thomas,

1988), and methods may be considered as equal (Watts & Stenner, 2005).

However, Principal Component Analysis holds advantages of simpler interpretation (Kramer, de Hegedus & Gravina, 2003; Webler et al., 2009) and visually displayed eigenvalues, which can guide further choices on extraction (Donner, 2001). Furthermore Centroid Analysis tends to be reserved for those wishing to use manual rotation (Webler et al., 2009). Varimax was chosen as no theoretical prediction was provided to justify manual rotation. Varimax offers the optimum statistical result (van Exel & de Graf, 2005). Again, Varimax often leads to simpler interpretation, as the method itself maximises the number of single loading participants (Webler et al., 2009). This is of utmost importance, as the interpretation of such results will be used in the following chapter.

Following the aforementioned decisions, a trial and error approach was applied to factor extraction in search of the most parsimonious result. This refers to the smallest number of factors, which account for the most participants. Thus no more factors than that which is necessary are retained. The presence of at least two loading participants on each factor was required to substantiate that factor as a valid viewpoint (Watts & Stenner, 2005). The final analysis extracted four factors which accounted for 54% of the variance, with 16 pure loading participants. Please refer to appendix 11.5.4 for individual participant factor loading scores. Table 4.2 displays the correlations between factors. The correlations suggest that all four factors appear independent. The strongest relation is between Factors A and B.

Table 4.2: Correlations between factor scores				
	Factor A	Factor B	Factor C	Factor D
Factor A	-	0.36	0.11	0.22
Factor B		-	-0.04	0.20
Factor C			-	0.02
Factor D				-

7.3.1 INTERPRETATION

The four extracted factors will be discussed in turn in an ‘idealised’ manner describing a typical viewpoint of a subscriber to the factor. The interpretations are based on the given factor array and distinguishing statements for each factor as detailed through the PQMethod output. Interpretations are also guided by follow up questions completed by participants.

7.3.1.1 FACTOR A: FACEBOOK AS A ‘SUPERFICIAL’ ENVIRONMENT

Factor A explains 15% of the variance and has an associated eigenvalue of 5.38. Four participants had pure loadings on this factor. Participants were all female, but of a range of ages (19-45). Although it would be premature to make any associations to personality during this part of the research, it may be of relevance at a later stage to note average personality scores. For the current factor, these were as follows: Psychoticism = 1; Neuroticism = 12; Extraversion = 3; Sociotropy = 87; Autonomy = 56. Within the post-sorting follow up questions these participants reported having relatively low level Facebook usage, with infrequent or short logins. Table 4.3 highlights the 7 statements rated at each extreme (14 in total). These items will be referred to heavily

within the factor description.

Table 4.3: Factor A Extreme Statements

Statement ID	Statement	Factor Array Position	Z-Score
29*	Facebook is a fake environment	+5	2.060
37*	Facebook has increased my social contact, but not my social life	+5	1.862
12*	It's nice to share what everyone's up to	+5	1.488
54	The behaviour of my Facebook friends sometimes angers or frustrates me	+4	1.467
9**	Facebook doesn't reflect the 'real me'	+4	1.378
24**	I can't help but compare my life to others' on Facebook	+4	1.236
8	It's just Facebook – I don't pay too much attention to it	+4	1.148
33	Facebook has made me more isolated from my friends	-4	-1.327
21	If I didn't use Facebook my offline social life would deteriorate	-4	-1.451
41	I feel like I can't control my Facebook behavior	-4	-1.539
7	Facebook is designed to breed paranoia in relationships and friendships	-4	-1.596
19	My Facebook behaviour could probably be considered unhealthy	-5	-1.699
2	When life is bad, you turn to Facebook	-5	-1.773
23**	Facebook has helped to ruin or upset a relationship or friendship	-5	-1.811

* denotes a distinguishing statement significant at $p < 0.05$.

** denotes a distinguishing statement significant at $p < 0.01$.

Factor A represents a belief that Facebook is a rather superficial social environment (statements 29, 8 and 9). It should be valued perhaps for its practicalities of keeping in touch with distant friends (statement 12) but not as an integral part of one's offline social life (statement 37 and 21). These participants are very aware of some of the negative consequences of Facebook

use (statement 24). Indeed, they may be more prone to social comparison behaviours on Facebook, suggested by the distinguishing statements “Facebook sometimes makes me feel like a loser compared to everyone else” and “I feel socially inadequate when I see my friends have been somewhere without me”, which were ranked higher than most factors (although still weakly at +1 and +3 respectively). Yet they acknowledge that they are not personally negatively affected (statements 23, 33 and 7) due to the way they view and use Facebook – i.e. in a non-addicted, controlled manner (statements 19, 2 and 41). Indeed, within the follow up questions it became clearly apparent that they believe a lot of the negative consequences from Facebook stem from obsessive or unhealthy use by others who take Facebook too seriously (statement 54). Again this is supported by the distinguishing statement “My mood affects how I perceive things on Facebook”, ranked as +3. This was higher than all other factors.

7.3.1.2 FACTOR B: FACEBOOK AS A ‘VALID AND VALUABLE SOCIAL’ ENVIRONMENT

Factor B explains 18% of the variance, with an associated eigenvalue of 2.13. Six participants had pure loadings on this factor (one male and five females). Ages ranged from 18-42. Average personality scores were as follows: Psychoticism = 3; Neuroticism = 6; Extraversion = 8; Sociotropy = 65; Autonomy = 74. Follow up questioning suggested that most loading participants used Facebook once a day. Table 4.4 highlights the extreme statements referred to within the interpretation.

Table 4.4: Factor B Extreme Statements

Statement ID	Statement	Factor Array Position	Z-Score
12*	It's nice to share what everyone's up to	+5	2.239
50	It's important to be selective with your friend choice if you want to enjoy Facebook	+5	2.106
51**	Facebook really helps my social life	+5	1.917
26	I find I easily lose vast amounts of time on Facebook	+4	1.863
27**	I feel like Facebook keeps me in the social loop	+4	1.653
30*	I feel happy when other's post about their happiness	+4	1.545
8	It's just Facebook – I don't pay too much attention to it	+4	1.348
6	Sometimes I get jealous of my Facebook friends	-4	-1.025
19*	My Facebook behaviour could probably be considered unhealthy	-4	-1.049
7	Facebook is designed to breed paranoia in relationships and friendships	-4	-1.143
14	Facebook sometimes makes me feel like a loser compared to everyone else	-4	-1.463
32**	Facebook has hurt me	-5	-1.465
5*	Facebook enhances my relationship insecurities	-5	-1.602
41	I feel like I can't control my Facebook behavior	-5	-1.722

* denotes a distinguishing statement significant at $p < 0.05$.
** denotes a distinguishing statement significant at $p < 0.01$.

Those who load onto Factor B believe Facebook is a positive environment (statements 12 and 30) that has valuable features to benefit their social life (statements 51 and 27). This is confirmed by distinguishing statements “Facebook can really cheer me up”, “Facebook does more good than harm” and “Facebook has increased my offline self confidence” which were all ranked significantly higher than other factors (ranked +3/+3/+2). Factor B participants

very much see Facebook as an integral and equal part of their social life. This is confirmed by the distinguishing statements “Being deleted/rejected marks the end of the offline friendship”, “Being deleted/rejected on Facebook is the ultimate insult” and “There’s no escape from Facebook. No Facebook = Social Recluse” which were all rated higher than in other factors (+2/+2/+1), and “My personality differs on Facebook to real life”, which was rated lower than in other factors (-2). They enjoy Facebook, and consequently may lose large amounts of time when logged in (statement 26). However, they do not believe it should replace one’s social life – but rather be valued as an additional medium (confirmed by statement 8 and follow-up questioning). Similarly to Factor A, they believe they have control over their use (statements 19 and 41), which prevents them from experiencing any of the negative consequences of use such as relationship detriment (statements 5 and 7), or lowered self-esteem (statements 32, 6 and 14). This was supported through follow up questioning whereby participants commented on how more addictive usage is more likely to result in negative effects.

7.3.1.3 FACTOR C: FACEBOOK AS AN ENVIRONMENT OF ‘SURVEILLANCE’

Factor C explains 10% of the variance. It has an associated eigenvalue of 1.72. The factor had three pure loadings. Participants were all 19 and female. Average personality scores were: Psychoticism = 2; Neuroticism = 11; Extraversion = 7; Sociotropy = 86; Autonomy = 66. Two loading participants reported multiple logins each day, whilst the remaining participant suggested that Facebook was always on in the background. Thus this factor may be associated with high use. However, this cannot be substantiated with the sample size currently available. Table 4.5 highlights extreme statements from the idealised factor array.

Table 4.5: Factor C Extreme Statements

Statement ID	Statement	Factor Array Position	Z-Score
42**	I torture myself by looking at Facebook pages of people I don't like	+5	2.295
35**	I feel socially inadequate when I see my friends have been somewhere without me	+5	1.965
38**	Facebook causes me lots of drama	+5	1.719
32**	Facebook has hurt me	+4	1.676
5	Facebook enhances my relationship insecurities	+4	1.513
23	Facebook has helped to ruin or upset a relationship or friendship	+4	1.500
43**	If I didn't use Facebook I would panic about what I was missing	+4	1.219
16	There's no escape from Facebook. No Facebook = Social Recluse	-4	-1.143
2	When life is bad, you turn to Facebook	-4	-1.303
21	If I didn't use Facebook my offline social life would deteriorate	-4	-1.398
9**	Facebook doesn't reflect the 'real me'	-4	-1.509
33	Facebook has made me more isolated from my friends	-5	-1.541
3**	Part of me wishes Facebook would disappear	-5	-1.562
17*	If you have no offline friends; you'll have no Facebook friends	-5	-1.836

* denotes a distinguishing statement significant at $p < 0.05$.
** denotes a distinguishing statement significant at $p < 0.01$.

Factor C is characterised by a juxtaposition of enjoyment on the site (statement 3), yet experience of negative social consequences (statements 38 and 32), such as relationship jeopardy (statements 5 and 23). This seems to stem from their usage of the site. Participants perhaps view the site as a 'Big Brother' method of surveillance, valuing the ability to snoop or monitor the behaviour of others. The user feels self-soothed by knowing what is happening (statement 43), which may increase perceived social standing (statement 33). This is further

supported by the distinguishing statements “Facebook sometimes makes me feel popular” and “I sometimes feel better about myself when I see the Facebook drama of others”, which are both ranked as +3 (higher than all other factors). However, as a consequence of such snooping behaviour the user is more likely to uncover ‘visual evidence’ of things they do not like, which perhaps accentuates the negative outcomes experienced as mentioned previously (statement 35 and the distinguishing statement “I have felt betrayed by someone because of what’s happened on Facebook” rated as +3 above all other factors). These ideas are summed up in the follow up questioning of one loading participant who suggested that they had a love/hate relationship with the site. Furthermore, another loading participant commented that she sometimes sees things on Facebook that she does not want to see, but then once she’s seen these things she wants to know more. This idea fits well with the highest positioning of statement 42 and the distinguishing statement “My Facebook behaviour could probably be considered unhealthy” rated as 0, with all other factors rating as -5 or -4. People pertaining to Factor C see Facebook as an important domain holding strong importance within their social life (statement 9 and 17). This is further evidenced by the negative positioning of distinguishing statements “Facebook is a fake environment” and “It’s just Facebook – I don’t pay too much attention to it”, ranked -3 and -1 (lower than all other factors). There is a belief however that they do not need Facebook (statements 21, 16 and 2), which does not appear to fit the remaining profile. Perhaps this belief stems from a defence mechanism whereby sorters are aware that they have strongly agreed with many of the negatively worded items and want to balance their view by emphasising that they are not dependent on Facebook.

7.3.1.4 FACTOR D: FACEBOOK AS A 'DESTRUCTIVE' ENVIRONMENT, ENFORCED BY OTHERS USING THE SITE

Factor D explains 11% of the variance and has an associated eigenvalue of 1.59.

Three participants had pure loadings on this factor. Demographics and

Facebook usage were diverse. Two females and one male loaded on to the

factor; ages ranging from 18-38. The post-sort follow up questions found that

two participants checked the site multiple times each day, whilst one logged in

approximately three times each week. Average personality scores for loading

participants were: Psychoticism = 1; Neuroticism = 6; Extraversion = 7;

Sociotropy = 69; Autonomy = 72. Refer to Table 4.6 for extreme statements from

the factor array output.

Table 4.6: Factor D Extreme Statements

Statement ID	Statement	Factor Array Position	Z-Score
3**	Part of me wishes Facebook would disappear	+5	2.162
23	Facebook has helped to ruin or upset a relationship or friendship	+5	1.909
50	It's important to be selective with your friend choice if you want to enjoy Facebook	+5	1.830
26	I find I easily lose vast amounts of time on Facebook	+4	1.668
20**	Facebook makes relationships harder	+4	1.648
22**	Facebook is ruining offline social occasions	+4	1.373
44	I fear the separate parts of my life clashing on Facebook	+4	1.332
46**	Facebook does more good than harm	-4	-1.113
18	I sometimes feel intimidated by others on Facebook	-4	-1.226
42	I torture myself by looking at Facebook pages of people I don't like	-4	-1.263
45	Facebook has increased my offline self confidence	-4	-1.457

Table 4.6: Factor D Extreme Statements

Statement ID	Statement	Factor Array Position	Z-Score
39	I sometimes feel better about myself when I see the Facebook drama of others	-5	-1.487
11**	People would forget my existence without Facebook	-5	-1.943
19	My Facebook behaviour could probably be considered unhealthy	-5	-2.041
** denotes a distinguishing statement significant at $p < 0.01$.			

Factor D participants see Facebook as a destructive, negative environment (statement 46), which is threatening traditional offline social existence.

Reported detrimental effects relate to the destruction of the user's offline social life (statements 23, 20 and 22, and distinguishing statement "Facebook is designed to breed paranoia in relationships and friendships" (ranked +3)), rather than personal self-esteem issues (statements 11, 42 and 18).

Furthermore, they strongly believe that Facebook use does not result in positive benefits (statements 39, 45 and the distinguishing statements "I feel like Facebook keeps me in the social loop" and "Facebook has increased my social contact, but not my social life" ranked as -2 and -1 respectively, lower than all other factors). Factor D users strongly disagree that their Facebook behaviour is unhealthy (statement 19). They perceive the behaviour of those who enjoy using Facebook as unhealthy, and somewhat blame them for continuing its existence - if others did not use it, they would not need to either. Thus they are not fans of the site (statement 3) and feel compelled to use it out of necessity because others do. This is supported by the follow up questions and a higher ranking of the distinguishing statement "Facebook has made me more isolated from my friends" than other factors (+1). They rank statement 26 highly as they

spend more time than they would want to on the site. This again may be linked to anxiety surrounding consequences of not using the site. Indeed, the high ranking positions of statements 44 and 50 suggests that these participants are worried about their presence on Facebook, and perhaps continue to use the site in order to gain control over this presence. The higher ranking (+2) of distinguishing statement “When life is bad, you turn to Facebook” compared to all other factors may seem surprising. However, this could relate to the fact that these participants blame Facebook for the ‘bad’ in their life, and they are turning to Facebook as the source of the fault.

7.3.2 CONSENSUS POINTS

Consensus statements refer to items that do not differ in their placement regardless of subscribed viewpoint. The analysis highlighted five consensus statements in total. Only one of these however, was non-significant at $p < 0.05$, which was “Facebook has made me nosey”. All viewpoints tended to agree with this (ranking of +2 or +3). The remaining four consensus statements were: “Facebook reminds me of my offline flaws” (ranking -2 to +1), “There are a lot of politics involved in Facebook. I have to consider my behaviour carefully” (ranking +1 or +2), “Facebook has had a large impact on my offline life” (ranking -2 to +1) and “Facebook rubs in bad situations” (ranking +1 to +3). These statements reflect universal assumptions regarding perspectives of Facebook, regardless of assigned factor as above. Most of the rankings are fairly neutral, suggesting that participants may have been conflicted by these statements or did not value them as key aspects of the Facebook experience.

7.4 DISCUSSION

7.4.1 VIEWPOINTS AND PERSONALITY

Due to the small sample size inferential statistics cannot be used at this stage. However, there are apparent trends from the average personality scores of loading participants, which can be theoretically associated to individual dispositions. The highest average sociotropy score was found in Factors A and C. Both of these factors are prone to social comparison outcomes. From earlier chapters it is suggested that sociotropic individuals show monitoring tendencies. From the factor narratives, it may be the case that sociotropic users can sometimes suffer negative outcomes from these behaviours, yet they generally feel positive by using the site to self-soothe their curiosities. Their experience may result in more negatives (i.e. Factor C) depending on specific instances and contextual situations. Factors B and D held the highest average autonomy score. High autonomy scorers are independent, and will therefore strive for independent control. It could perhaps be hypothesised that users who feel in control of their Facebook use appear to enjoy it, as in Factor B. However, if they feel they have lost their independence in terms of choice of use they may be more prone to view it as a destructive environment as in Factor D. Factor B had the highest psychoticism score, suggesting that these users may receive benefit from Facebook use. However, it is worth noting that three out of the four participants who scored seven or above for psychoticism did not load on to just one single factor; but rather were confounded between viewpoints. This can be explored further in the next chapter. Factor A participants had the highest average neuroticism score. This may be similar to sociotropy in the sense that high scorers may indulge in more social comparisons. Indeed a high score is also found for Factor C. Furthermore, as high neuroticism tend to use SNSs an arena of escapism, they may not be as invested as other users. The highest average

extraversion score was for Factor B. High scorers tend to be carefree so it makes sense that they will benefit from Facebook for its practicalities as an extension to their social life, without investing into the potential negative outcomes that others experience. The lowest average extraversion score was for Factor A. Introverts may not particularly benefit or suffer from their usage; perhaps as a result of minimal investment with preference for more anonymous environments. It appears that personality may play a part in how Facebook is experienced, yet their individual situation (such as time spent online or usage by their friends) may ultimately affect prescribed viewpoint taken.

7.4.2 ASSOCIATIONS TO THE THEMATIC ANALYSIS

The prominence of the three influential factors was not as strong or apparent as anticipated, but trends were visible. For instance, those in Factors A and B, the two positive viewpoints, felt strong control over their Facebook usage, whilst those in C and D perceived themselves to have less control. For instance, the statement “I feel like I can’t control my Facebook behaviour” was rated as -4, -5, -1 and -2 respectively. Some items derived from the opinions of Facebook theme tended to differ between viewpoints also. For instance “Facebook is a fake environment” was ranked as -3 by Factor C yet as +5 by Factor A. These differences were reflected in the general framework of the viewpoints (e.g. Factor B sees Facebook as an integral part of their social life, whilst Factor D sees it as destroying social lives in their traditional sense). Thus rather than prominent rankings as expected, the influencing themes denote the general premise of each viewpoint. The offline circumstances theme however was not as apparent.

7.4.3 LIMITATIONS

A student sample was used following the thematic analysis of student responses. Weaknesses pertaining to such a sample should be acknowledged. Students tend to have larger social circles than perhaps other societal groups, and their constant interaction with technology may necessitate site usage. Such pressurised use (through friends and course demands) may reflect different experiences to Facebook than those from a non-student sample. Such ideas will be explored in chapter eight.

The interpreted viewpoints can only be based on the statements included (Daniel, 2000). It is inevitable that the restriction of statements to a useable sample may result in an incomplete picture. A larger concourse and further analysis may have resulted in a different Q set. Likewise, drawing from all themes may have led to too much divergence in opinion and explain why some items do not fit fully and comprehensively within their given factor description. However, the interaction between the Q statements used provide an accurate and representative reflection of salient Facebook experiences as discussed in the forum, and it is argued that such a strategy promotes reliability and rigour through ensuring statements were of a representative manner. Indeed, Watts and Stenner (2005) argue that it is the participants' engagement with the statements which is of most importance during the sort procedure. This can compensate for a less than perfect Q set.

In retrospect, some items may have over-relied on specific experiences rather than generic experiences or opinions. For instance, the item 'Facebook has helped to ruin or upset a relationship or friendship' may have resulted in extreme placing (+/-5) as it's saliency as a social memory is so apparent. The rephrasing of such items should be considered if the Q-sort were to be repeated.

Although Likert scales often aim for an even number of positively and negatively worded items, such a requirement is not emphasised in Q methodology due to the sorting of statements at two extremes. However, many participants pre-arranged their statements into distinctively different sized piles (for instance, distributing only a small number of items to the 'agree' pile). This perhaps suggests that some of the statements may have been worded too negatively.

7.4.4 CONCLUSION

The current study has successfully identified four unique viewpoints towards Facebook as a social environment. These viewpoints range dramatically in their outlook, and can be visualised on a continuum scale of positive (Factor B) to negative (Factor C). However, the results as they stand only show the potential range of viewpoints and do not indicate their generalisability beyond this. Due to the low sample size it is not possible to make comprehensive conclusions about potential predictors, despite any presence of observed patterns which have been discussed. Indeed, Danielson (2009) cautions that the strongest factor may be the least assigned to within a wider population. In order to generalise results and explore the predictability of viewpoints from personality, the final chapter in this phase of research will combine current results with R methodology. Combining objective and subjective analysis could offer a more comprehensive approach to analysis.

The results as they stand show support towards both beneficial and negative consequences of use in terms of well-being. It is evident that some users seem to be utilising Facebook as a positive social resource (viewpoints A and B), which in combination of phase one and two, fits well within the uses and gratifications model. However, the model is challenged by the remaining two viewpoints.

Some users appear to have developed a love-hate relationship for the site (viewpoint C), whilst some seem to detest the site despite continued use (viewpoint D). This finding has strong implications for uses and gratifications. The model suggests that users engage in media as their motivating needs are being met (or gratified). Thus uses and gratifications alone would not explain continued usage when negative outcomes are experienced. Two potential solutions are proposed. First, inspiration can be taken from Joinson's (2003) SMEE framework in regards to emergent and expectant effects and a potential feedback loop. Although users start to use Facebook with a particular goal in mind, unexpected outcomes may develop. In the instance of viewpoint C users may be conflicted by the benefits of their expected outcomes alongside emergent negative consequences of these outcomes. However, it is more difficult to explain viewpoint D in this manner. The second solution would be to challenge the definition of gratifications as a direct source of satisfaction. Viewpoint D individuals appear reluctant to leave the site due to further potential negativities. Perhaps Facebook can be seen as a collective space of interaction, whereby the community takes precedence over the individual. Although this has many positives (views A, B and C), for some its intrusion may seem overwhelming (view D). Yet, the consequences of being outside of the collective may be feared. One may consider the Star Trek analogy of the "Borg". In the show the Borg refer to a collective of individuals with a constant innate group communication system. Once part of this collective it becomes very difficult to leave. Indeed, the character 'Seven of Nine' suffered feelings of exclusion and loneliness once her connections to the Borg collective had been severed. When considering this in light of the results of the thematic analysis, it may be argued that one's collective investment may be determined by their

level of perceived control, their opinion of Facebook as a social platform, and their offline circumstances. Thus, although they are not explicitly evident within the viewpoints they indirectly affect an individual's outcome use. For instance, those in viewpoint B show a high level of perceived control and see Facebook as an alternative positive social environment. They will therefore enjoy the collective nature of the site. Whereas those in viewpoint D feel they have lower control and do not value the site socially. They would therefore prefer to leave the site. However, their collective investment is high, so they feel they need to stay on the site as others around them are. Those with low collective investment may therefore choose not to use the site. In terms of uses and gratifications, it is therefore suggested that a linear pattern of 'gratifications-sought – gratifications-obtained' is insufficient in explaining site investment. These ideas are discussed further in chapter nine.

Aside from adding to the content of this thesis, the current chapter offers an improved understanding of the benefits and drawbacks of Facebook use, in terms of specific experiences and subscribed viewpoints. Previous research has lacked a user perspective of their Facebook experience. Furthermore, any such studies have tended to focus on one specific aspect of the experience (e.g. social capital). The current chapter, although part of a phase of research, takes a novel approach to the Facebook experience and its tentative connections with a well-being implication.

CHAPTER EIGHT: PERSONALITY AND FACEBOOK EXPERIENCES (PHASE 3.3)

8.1 INTRODUCTION

The current chapter concludes phase 3 of this thesis by exploring Facebook experiences in light of personality types. The previous two chapters have highlighted key themes relating to how Facebook is viewed as a part of one's social life, and summarised these themes into testable viewpoints. These will now be associated to the personality variables explored to test whether certain personality types are more prone to experience Facebook in differing ways. Personality is thought to predispose individuals to interact in a certain manner (Watson & Clark, 1994) thus it stands to reason that personality will affect social experiences.

8.1.1 Q AND R METHODOLOGY

The previous chapter made inferences about how personality could relate to the viewpoints uncovered. However, the given P set (participant sample) within a Q study is too statistically small to generalise onto further populations. As detailed previously, a larger P set is not as influential as a carefully selected sample. As such only a small number of participants were used to generate viewpoints. In order to generalise results and explore possible predictors of each viewpoint, R methodology (traditional quantitative methods) should be employed. The combination of both Q and R methodology merges the strengths of each individually, allowing for the generalisability of rich subjective viewpoints unobtainable from other methodologies.

Danielson (2009) suggests three potential procedures to combine Q methodology with traditional R methodologies. First, 'Scale creation' (Brown, 2002) is when distinctive Q sort statements representative of each of the perspectives are used to formulate a traditional Likert scale questionnaire. The ease of an agreement scale seems appealing in terms of data collection. However, the technique has been criticised for lacking practical methodological guidelines. Furthermore by considering Q statements individually in turn, the overall viewpoint is missed from the evaluation (Baker, van Exel, Mason & Stricklin, 2010).

Second, 'Profile correlation' is when the participants' overall responses are correlated with representative prototypes of the perspectives. The technique relies on Q methodology calculations, by taking the original ranking of statements into account. However, again the viewpoint as a whole appears to be ignored, with adherence based on high correlations of single statements. Furthermore, the technique is thought to be in need of modifications (Danielson, 2009).

Finally, 'Narrative evaluation' is when participants are asked to rate agreement to compiled narrative statements or vignettes of each perspective. Baker et al. (2010) later built on this assumption, with a described 'Factor Descriptions' technique. Unlike the alternatives, this approach considers the entire viewpoint as a whole rather than individual statements. In terms of practical guidelines, Danielson (2009) argues that using a level of agreement may cause participants to load on multiple viewpoints. To ensure clarity of results it is suggested that research should ask participants to choose the narrative they most agree with. However, such a definitive answer would not allow an analysis of strength of

agreement, and as such it may be more fruitful to include both measures (Baker et al., 2010).

A fourth alternative entitled 'The Q-block' has also been advocated (Talbot, 1963), in which high or low scoring distinguishing statements from each viewpoint are arranged in a series of blocks, with a representative statement from each viewpoint in each block. Participants are then asked to rank statements within blocks to uncover their preferred viewpoint. However, the Q-block technique has been criticised for its lack of specific instructions in regards to creating the blocks, and its simplistic scoring system, which does not encompass statements from each block within a comprehensive manner (Baker et al., 2010). Furthermore, Danielson (2009) argues such a technique lacks validity through lack of further implementation.

From these options, the technique of 'Narrative evaluation' seems most suited; holding the most benefits for the needs of the current study. Providing a narrative allows participants to ascertain a better level of understanding towards each viewpoint as a whole (Danielson, 2009), whilst allowing the researcher to explore the validity of their interpretation of the viewpoints, leading to accurate analysis interpretation. Furthermore, data can be easily collected in both a Likert scale of agreement and self-categorisation to a chosen viewpoint, allowing data subtleties to be explored.

8.1.2 AIMS AND HYPOTHESES

The final experimental chapter of this thesis draws upon two research aims. First, it questions the generalisability of the Facebook viewpoints identified from the previous chapter; specifically exploring how different personality

types perceive Facebook. Second, the research also explores additional aspects of usage, which remain unexplored within earlier chapters of the thesis. It focuses on two aspects which will provide insight into well-being implications from Facebook use. These are Facebook 'intensity' and the perceived effect of Facebook on romantic relationships. Specifically two research questions are posed: 1) Is intensity of use associated with any particular personality type or viewpoint? 2) Does Facebook use have an effect on romantic relationships for different personality types? From the previous chapter, eight specific hypotheses can be claimed. It is important to note that alongside these, more exploratory analyses will also be undertaken.

1: High extraversion scorers will subscribe to viewpoint B. 2: High neuroticism scorers will subscribe to viewpoints A and C. 3: High psychoticism scorers will subscribe to viewpoint B. 4: High sociotropy scorers will subscribe to viewpoints A and C. 5: High Autonomy scorers will subscribe to viewpoints B and D. Hypotheses 1-5 are based on the tentative associations within the previous chapter.

6: Sociotropy will be able to predict intensive Facebook use. This is based on assumptions of self-monitoring behaviours throughout the previous chapters. Such users may use Facebook with high intensity due to a fear of 'missing out'.

7: High scorers of sociotropy and neuroticism will perceive Facebook to have a negative effect on their romantic relationship. Viewpoints C and D are characterised by relationship insecurities. However, D is underlined by a lack of control, whilst C is based on social surveillance, which has previously been linked to relationship jealousy (e.g. Muise, Christofides & Desmarais, 2009). As such, it is suggested that those subscribing to viewpoint C (i.e. high sociotropy

and neuroticism scorers) would be more likely to report Facebook as negatively impacting upon their relationship.

8: Those higher in psychoticism and extraversion will perceive Facebook to have a positive effect on their romantic relationship. Viewpoint B is associated with enhanced relationships. Thus, those who subscribe to this viewpoint will believe that Facebook can improve their relationships. This is also supported by earlier findings that those who score higher in psychoticism and extraversion are more likely to use Facebook to search for new relationships.

8.2 METHOD

8.2.1 PARTICIPANTS

In total, 142 participants completed the questionnaire pack (76.1% females; 23.9% males). Ages ranged from 16 to 55 ($M = 24.54$ years; $SD = 8.09$). The study utilised an opportunity sampling method. The Q-sort analyses of the previous chapter were based on the thematic analysis of a student forum (chapter six). As such both students and non-students were recruited to explore the generalisability of results in a comparative manner. There were 77.5% student participants, compared to 22.5% non-student participants. Students had an age range of 18 to 50 ($M = 22.75$ years; $SD = 6.47$), with a 77.3% female to 22.7% male split; whilst non-students had an age range of 16 to 55 ($M = 30.63$ years; $SD = 10.02$), with a 71.9% female to 28.1% male split.

Student participants were recruited through a participant pool scheme as part of The University of Wolverhampton's Psychology department. The study was advertised both in lectures and on the research participant pool database. A

postal version of the study was advertised to increase the number of non-students participating. No monetary incentive was offered. However, students were offered course credit to participate in the study.

8.2.2 MATERIALS

All materials can be accessed within the appendices of this thesis.

8.2.2.1 VIEWPOINTS QUESTIONNAIRE (SEE APPENDIX 11.6.1)

The viewpoints questionnaire consisted of two main sections. The first section (referred to as Section A) builds on the previous two chapters to explore whether personality is affiliated with particular viewpoints of how Facebook is experienced. The second section (Section B) provides an insight into the general Facebook usage of users, to add weight to suggested implications of the thematic analysis within chapter six, as well as building on unresolved ideas from the previous phases of research.

Section A required participants to read four summaries from hypothetical Facebook users about their opinion of Facebook. These four summaries were taken from the Q Sort analysis and interpretation from the previous chapter. The summaries were compiled of distinguishing statements and information from the factor array for each viewpoint. Danielson (2009) and Baker et al. (2010) emphasise that original Q statements are of utmost value. The current study follows Baker et al.'s 'Factor Descriptives' Technique' by creating a character vignette to represent each viewpoint. Participants are asked to rate each viewpoint on an eight-point scale (Completely Disagree to Completely Agree). Furthermore, they are asked to identify the viewpoint they most and least relate to, in the instance of a tied-ranking.

Section B explored general aspects of Facebook usage, which have currently been unexplored within this thesis. First, Ellison et al.'s (2007) Facebook Intensity Scale (FBIS) is included to explore level of active Facebook engagement. The FBIS has been widely adopted as a measure of high Facebook consumption and intense usage (e.g. Burke et al., 2010). Although personality differences did not appear to influence general SNS usage (such as time online) within chapter four, a scale exploring intensity of use rather than stand-alone questions may produce a more accurate reflection of site investment. The scale itself is made up of several items, which were split over three questions within the questionnaire. The first question contains six items relating to general opinions of Facebook and its importance. These are rated on a five-point scale of strongly disagree to strongly agree. The second question asks participants to verify the number of Facebook Friends they have. The authors suggest that this can be altered; however, it was used in its original form. Above 300 Friends the scale is adjusted to move to higher increments. Dunbar's number (based on work by Dunbar, 1993) suggests a theoretical cognitive limit restraining networks to more than approximately 150 people. Thus the original scale appeared satisfactory and able to distinguish extreme numbers of Friends. The final question asks participants to estimate the time they spend actively using Facebook each day. Although not included in the original scale, an added definition of "active use" was included to gauge a more accurate estimation. An additional sentence (i.e. *"Only include times where you have been looking at or interacting with the website; having Facebook open in the background whilst doing something else does not count"*) was included to clarify the definition.

Second, participants were asked to identify their relationship status and, if applicable, comment on the affect Facebook has had on their current relationship. Again this was an exploratory question created in response to the previous thematic analysis and Q-sort, which highlighted that Facebook could have a potential detrimental effect on relationships.

8.2.2.2 PERSONALITY

Refer to chapter three for more information regarding the EPQ-R short form and SAS.

8.2.3 PROCEDURE

Participants were given a short questionnaire pack to complete. The pack consisted of the information sheet and consent form, the two personality questionnaires, and a Facebook Viewpoints questionnaire. The latter questionnaire was designed based on findings from the previous two chapters of this thesis. Questionnaires were freely available to anyone wishing to participate, although both students and non-students were specifically sought.

8.3 RESULTS

8.3.1 DATA SCREENING

Data were screened for potential data input mistakes. Any values found outside of possible data ranges were checked against the original questionnaire responses.

8.3.2 PERSONALITY VARIABLES

Table 5.1 displays descriptive statistics relating to participant personality scores. Means and standard deviations suggest that a wide range of personality

types participated in the study. The spread of results mimicked that of the previous chapters. Exploratory analysis suggested non-normality of variables as found previously (specifically for psychoticism, extraversion and age).

Table 5.1: *Personality score distribution among participants completing viewpoints questionnaire*

	N*	Minimum	Maximum	Mean	Std. Deviation
Psychoticism	141	0	9	2.42	1.94
Extraversion	141	0	12	7.62	3.37
Neuroticism	142	0	12	6.58	3.42
Sociotropy	134	19	110	69.07	18.18
Autonomy	134	33	108	71.43	14.31

** Participants were only excluded if all personality information were missing.*

Students and non-students were compared on their personality characteristics. Groups significantly differed in terms of Extraversion ($U = 1298.0$; $Z = -2.207$; $p = .027$), Autonomy ($U = 904.0$; $Z = -3.801$; $p < .001$) and Age ($U = 736.0$; $Z = -4.991$; $p < .001$). The student participant group were younger ($M = 22.75$ compared to 30.63) and higher in Extraversion ($M = 7.95$ compared to 6.47) and Autonomy ($M = 73.87$ compared to 63.66).

8.3.3 VIEWPOINTS ANALYSIS

Participants were asked to identify the viewpoints they most agreed and least agreed with. ANOVAs were conducted to explore differences in personality between those of selected viewpoints. All ANOVAs were non-significant. However, a one-way ANOVA did find a significant difference of age between condition groups for most agreed ($F_{(3, 129)} = 4.371$; $p = .006$). Post hoc testing through Bonferroni uncovered a significant difference, between viewpoints C ($M = 20.0$ years) and D ($M = 30.1$ years).

Due to the non-significant nature of the ANOVA results, correlations were explored between personality scores and level of agreement assigned to each viewpoint to explore more subtle effects. Several significant results were uncovered for the last two viewpoints. Neuroticism was found to significantly correlate with agreement to viewpoints C ($\rho = .244$; $N=142$; $p=.003$) and D ($\rho = .168$; $N=141$; $p=.046$). Sociotropy also correlated with agreement level to C ($\rho = .354$; $N=134$; $p<.001$) and D ($\rho = .178$; $N=133$; $p=.040$). Autonomy correlated to agreement with viewpoint D only ($\rho = .225$; $N=133$; $p=.009$). These correlations were all positive, yet weak. Age and sex also correlated with viewpoint C agreement, yet negatively ($\rho = -.220$; $N=141$; $p=.009$ and $r = -.193$; $N=141$; $p=.022$ respectively). No other correlations were significant.

As the Q-sort viewpoints were collated from students, the participant group was divided to explore student participants exclusively. This yielded slightly different results. Extraversion correlated with level of agreement to viewpoint B ($\rho = .219$; $N=109$; $p=.022$), with those higher in extraversion showing higher levels of agreement. Neuroticism correlated with level of agreement to viewpoint C ($\rho = .263$; $N=110$; $p=.005$), as was sociotropy ($\rho = .337$; $N=104$; $p<.001$). Autonomy and Psychoticism did not significantly correlate with any viewpoint. Age was found to negatively correlate with viewpoint C ($\rho = -.211$; $N=109$; $p=.028$) and sex negatively correlated with viewpoint D agreement ($r = -.262$; $N=109$; $p=.006$), suggesting that younger users agree more with C, whilst males agree more with D.

8.3.4 USAGE CLARIFICATION

As the thematic analysis discussion highlighted intensity of use as a possible determinant of well-being, participants were asked to complete the Facebook

Intensity Scale (FBIS) in order to assess whether any particular personality types tended to use Facebook in a more intense manner (i.e. spent more time on the site and rated it of high importance within their life). Correlations were conducted to explore this. Sociotropy was the only personality variable to significantly correlate to FBIS scale score ($\rho = .231$; $N=134$; $p=.007$); although age was also significant ($\rho = -.285$; $N=141$; $p=.001$). Regression analysis (Enter) was used to determine the predictability of intense Facebook use from sociotropy and age. The model was significant ($F_{2,132} = 7.518$, $p = 0.001$), accounting for 9.0% of the variance. Refer to Table 5.2 for variable coefficients. Thus higher sociotropy scorers and younger users are more likely to use Facebook in an intense manner.

Table 5.2: Coefficients associated with regression model predicting FBI Score

	<i>B</i>	<i>SE B</i>	β
Constant	3.237	.386	
Sociotropy	.009	.004	.192*
Age	-.028	-.241	**

Note: Adj. $R^2 = .090$. * $p < .05$; ** $p < .01$

FBI score was correlated with each of the viewpoints to explore whether any were associated with intense use. Significant correlations were found with viewpoints A ($\rho = -.327$; $N=142$; $p < .0005$) and B ($\rho = .506$; $N=142$; $p < .0005$).

The perceived impact of Facebook on romantic relationships was also briefly explored, due to the prominence of issues surrounding relationship dissolution within the thematic analysis. Participants were asked whether they were in a romantic relationship (57% replied yes), and whether their partner themselves were on Facebook (of which 84% replied yes). Those that answered yes to both

questions were further asked to rate the level of impact Facebook had on their relationship: Negative (12.7%), None (78.5%) or Positive (8.9%). Kruskal-Willis tests exploring personality differences between those within each rating found significant differences for sociotropy ($\chi^2 = 9.272$, $df=2$, $p=.010$) and neuroticism ($\chi^2 = 9.099$, $df=2$, $p=.011$). Mann-Whitney U tests were used for post-hoc testing, and found that the significant difference lay between those who reported a negative impact compared to no impact (Sociotropy: $U = 65$, $z = -2.94$, $p=.003$; Neuroticism: $U = 130$, $z = -2.95$, $p=.003$). Those that perceived Facebook to have a negative impact on their relationship were higher in sociotropy and neuroticism, than those who perceived no impact (Sociotropy: $Mdn = 84, 64$; Neuroticism: $Mdn = 11, 5$).

8.4 DISCUSSION

The study offers a unique exploration of personality and subjective views of the Facebook experience. The ANOVA results suggest that personality was not strong enough to predict personality allegiance to particular viewpoints. However, the Likert scale responses do show that certain personality types tend to agree more so with some viewpoints than others.

There are slight differences when considering the data of all participants, compared to just students. The results of the students alone allow a more specific outlook, with personality variables correlating with more single viewpoints. As such, this may suggest that the data should only be generalisable to the student sample in which the original thematic analysis was based on. As noted in chapter seven, students may be more pressurised to use Facebook due

to course requirements (e.g. sharing assignment information through Facebook) and larger social circles. This may impact on how Facebook is experienced.

For the student sample, high extraversion scorers were more likely to show higher levels of agreement with viewpoint B, which supports hypothesis 1.

Viewpoint B is the most positive viewpoint uncovered and essentially sees Facebook as a valuable method of improving their social life. This result is very positive in terms of the outcome of Facebook use for extraverts, allowing them to utilise the social features of the site without encountering any negative aspects. Conversely introverts may not agree with viewpoint B as their usage does not allow them the benefits suggested. Viewpoint B perhaps relies on a stable offline social life in order to gain enhancement through Facebook.

Extravert students, who are more likely to have large social circles across geographical areas and be encouraged to use the site in their studies (e.g. to discuss work, join student union groups, etc.) may find more benefit from the site than non-students.

Neuroticism and sociotropy positively correlated with viewpoint C in both the student-only and all participant conditions. This provides support for hypotheses 2 and 4. Throughout this thesis it has been suggested that self-monitoring the behaviour of others online may act as a self-soothing process for those with social anxieties. This is particularly true for high sociotropic scorers who rely on positive self evaluation from others. However, this intense monitoring can perhaps skew observations out of proportion, causing negative social consequences as outlined in the example statements within the thematic analysis. Previous research has already suggested that high neuroticism and sociotropy scorers can demonstrate a stronger negativity bias than lower

scorers (Chan, Goodwin & Harmer, 2007; Moore & Blackburn, 1993). Thus it is suggested that Facebook may become particularly harmful to these particular personality types. When including non-students in the analysis, sociotropy and neuroticism also correlate with viewpoint D, which was not expected by the hypotheses. Although not as harmful perhaps as viewpoint C, D sees Facebook as a very negative environment that ruins offline social lives. It may be that the student lifestyle promotes some benefits through Facebook allowing enjoyment from the site despite the negative consequences of use, i.e. the site gratifies these users encouraging continued use. For instance, students are likely to have two distinct geographical social circles (based on their home location and university location), and they would not be able to keep in contact with both of these circles without Facebook. However, for non-students the negatives of such use may sometimes outweigh the positives. Alternatively, Facebook may be ingrained within student culture, making it less likely that students dislike it (as in view D). Following on from the 'collective investment' theory highlighted in the previous chapter, high neuroticism and sociotropic scorers may feel that they cannot escape the site without affecting their social status. This fear therefore encourages users to maintain their profile, as leaving the collective would promote further anxiety. As the association with viewpoint A was not established hypotheses 2 and 4 were only partially supported

Psychoticism was not significantly correlated to any viewpoint, which contradicts the prediction of a possible association to viewpoint B (hypothesis 3). This may suggest a potential missing viewpoint, and perhaps further research would benefit from exploring the Facebook experiences of high vs. low psychoticism users rather than on a scale. It may be that the current viewpoints

focus too much on offline social lives to show any distinction between high and low scorers.

Autonomy did not correlate with any viewpoint in the student-only condition. However, when analysing all participants, it did correlate to viewpoint D. Again, as a relationship with viewpoint B was not established, this partially supports hypothesis 5. It stands to reason that those with high autonomy scores dislike the lack of control within Facebook use, due to their high need for independence. Those in viewpoint D feel as though Facebook is ruining social environments by being forced into everyone's social lives. Those with high autonomy scores do not appreciate this lack of independence behind use. Thus although they may enjoy the concept of Facebook, they dislike its generalisation into society.

Age was found to negatively correlate with viewpoint C in both the student-only and all participant analyses. Younger users are therefore more likely to experience some of the social negative effects of Facebook more so than older users. This is particularly interesting when compared to research suggesting that younger users tend to focus on positive interaction events (Valkenburg et al., 2006), which may contribute towards the love-hate relationship described by this view. Although younger users experience these negative outcomes the impact of such outcomes may be minimised by their optimism. Additionally, this finding may reflect the minimalistic use by older users, who would be less likely to experience such severe consequences. In the all participant condition sex was also negatively correlated with this viewpoint. However, in the student-only analysis, a significant correlation was found for viewpoint D. These results may suggest that males more so than females experience the negative effects of

Facebook. As women are traditionally associated with social maintenance, it seems reasonable that men may be more prone to dislike Facebook (viewpoint D); particularly in the students due to its stronger saliency. However, the association of males to viewpoint C is more surprising. Perhaps the presence of social information is considered over-whelming for those not used to socialising in such an overt manner.

The Facebook Intensity Scale found that high sociotropy scorers and younger users were more likely to use Facebook in an intense manner, lending support to hypothesis 6. Indeed, regression analyses suggested that both sociotropy and age could predict intensity score. Such a finding has strong implications in terms of well-being. The thematic analysis and Q study interpretation of the previous chapters suggested that those who became more invested in Facebook may be more affected by its usage in a negative manner. This assertion initially appears to hold true when considering the association between these variables and viewpoint C. However, when correlated with the viewpoints, FBI score shows a fairly strong positive correlation with viewpoint B. This suggests that those that value Facebook as an extremely positive addition to their social life use it in an intense manner; therefore, suggesting that intensive use *does not* equate to negative outcomes. This is an important assertion as it contradicts public perception based on the thematic analysis. Rather, the results imply that higher sociotropy scorers and younger users tend to partake in more intense use, but that intensive use itself does not mediate the relationship between these variables and viewpoint C (i.e. negative outcomes). This is particularly interesting in light of the suggestion that increased intensity reduces social capital (Burke et al., 2010), and that Facebook ‘intrusion’ or addiction promotes

jealousy in offline relationships (Elphinston & Noller, 2011). The current results suggest that high intensity does not necessarily result in negative outcomes.

As an aside, the correlations between FBI score and viewpoints appear theoretically valid. The negative correlation with viewpoint A suggests that those who subscribe to this viewpoint are rarely invested in Facebook. As this viewpoint represents a nonchalant perspective, it makes sense that such users experience Facebook use in an occasional, relaxed manner as hypothesised in the previous chapter. Furthermore the positive association with viewpoint B holds true as it is held as a positive experience and thus continued use is reinforced.

Young, and sociotropic users seem to be showing increased investment into Facebook despite experiencing negative outcomes, which appear threatening to their self-esteem and perceived social status. As high sociotropy scorers may show a vulnerability to depression when their need for positive social feedback is not met, such a finding may suggest that these users are at risk using Facebook. Their continued use supports Muise et al.'s (2009) suggestion of a feedback loop, whereby negative outcomes of the site promotes further usage with users worrying about potential information they would miss without such use. Intensive use despite the occurrence of negative consequences maps on to Angres and Bettinardi-Angres' (2008) definition of a potential addiction. Thus further research would benefit from exploring potential consequences of these ideas in light of non-substance addictions.

Higher sociotropy and neuroticism scorers reported that Facebook had a negative effect on their relationship. Again, the association with viewpoint C supports this, as predicted in hypothesis 7. Particularly for sociotropy scorers,

in light of the above discussion, it may be suggested that Facebook use is discouraged. Further research could benefit by exploring this in more detail; although literature surrounding Facebook jealousy and the results within the thematic analysis concerned with relationship detriment may hold insight into potential reasons why. Hypothesis 8 was not supported. Those reporting a positive outcome were no different in extraversion or psychoticism compared to those reporting no effect or a negative effect. This may suggest that Facebook can enhance relationships, but may not necessarily improve relationships.

8.4.1 LIMITATIONS

Although patterns of results are visible, personality does not appear to be a particularly strong predictor of Facebook experience. Rather, the results suggest that certain types of personality are more likely to experience Facebook in particular ways, which fits their underlying social disposition. The non-significant ANOVA results however may question the validity of the interpreted viewpoints of the previous chapter. Results did appear to match the general hypotheses made previously, but further research may benefit from exploring the viewpoints in a deeper, perhaps qualitative manner.

Although mentioned above it is worth reiterating that the generalisability of the current results is questionable, beyond a student sample. Using this study as a starting point, it would be of interest to repeat the study using an analysis of statements from the general public in regards to how Facebook is experienced.

Finally, the current study uses a 'narrative evaluations' technique to merge Q and R methodology. Although this was best suited for the current research question (refer to the introduction of this chapter), alternative methods should

not be ignored. For instance, the current method is unable to assess the strength or saliency of individual statements that make up each viewpoint.

8.4.2 THEMATIC ANALYSIS AND Q SORT MEMBER CHECKING

As an additional avenue of validity, participants were asked to provide comments on the narratives within the questionnaire. Specifically, participants were given the instruction: *"If you have any additional comments about your viewpoint, or about the viewpoints above, please detail them here"*. Although most participants did not comment, the results appeared fairly positive. A few participants said the viewpoints summed them up "perfectly" (e.g. ***"I completely agree with what is said by viewpoint A"; "Person C describes my experiences with Facebook perfectly"***), whilst others suggested that they recognised the viewpoints in others (e.g. ***"Although I agree that a lot of what [person D] is saying 'could' happen, it does not seem to be relevant or applicable to me as I have not experienced the negativity referred to"***). Importantly, no participants said they completely disagreed with the viewpoints. Many recognised limitations within the viewpoints (such as disagreeing with some statements) but this would be expected given the nature of participant loadings upon an 'ideal' viewpoint. If considered a form of member checking, such results provide support for both the thematic analysis and Q methodology narrative breakdowns.

8.4.3 CONCLUSION

The current research poses interesting questions surrounding the implication of Facebook use on well-being. High sociotropy scorers may be particularly at risk due to the association with intense usage, and self-proclaimed negative experiences. Experiencing Facebook in this manner appears particularly

dangerous for these individuals; and such personality types should perhaps be wary. It appears that the rich-get-richer vs. the poor-get-richer hypotheses previously suggested by past literature (e.g. Zywicki & Danowski, 2008) are too simplistic to cover potential experiences of Facebook. Although social enhancement (rich-get-richer) is supported by the association of extraversion with viewpoint B, the intricate relationship between benefits of use against detriment to self-esteem is hard to untangle. Indeed, such results should perhaps be considered in line with Prospect Theory (Kahneman & Tversky, 1979), which explores the way individuals weigh up decisions. Those associated with viewpoint C (i.e. high neuroticism and sociotropy scorers, males (in the all-participant group) and younger users) choose to continue use despite negative risks. Thus for these users the certainty of gain from the site (i.e. collective investment, self-soothing, etc.) outweighs the probable risks involved (i.e. detriment to self-esteem, jealousy, etc.). Further research should explore the balance and prevalence of both positive and negative consequences of use in order to establish implications of usage in terms of well-being.

CHAPTER NINE: FINAL DISCUSSION AND SUMMARY

9.1 INTRODUCTION

The current thesis has offered an exploratory look at personality as a prerequisite for determining SNS behaviour, with a specific focus on Facebook. Three phases of research have been undertaken to establish this initial relationship between individual differences and SNS usage. Phase one explored motivations behind SNS usage to question why differing personality types may be drawn to such sites. The analysis highlighted a range of motivations behind site usage, and these were successfully linked to the different personality types explored. These motivations appear to impact upon actual behaviour, with phase one also uncovering tentative links to several specified online behaviours, and general SNS application use. Phase two elaborated on such results to explore how different personality types engage with Facebook features specifically as a method of self-presentation. A thorough content analysis allowed for exploration of subtle differences, which helped to further the interpretation of findings from the previous phase of research. Phase three allowed insight into the experience of Facebook users. Specifically, it highlighted potential viewpoints of Facebook and an exploration of at-risk personality types based on these viewpoints. To clarify results across the thesis, each personality type will be discussed in turn to produce typologies of usage. Although the effect sizes of results are not particularly strong, patterns of unique behaviours have emerged for each personality type, distinguishing engagement levels between high and low scorers.

9.2 SUMMARY OF RESULTS

9.2.1 EXTRAVERSION

Although introverts are thought to share their 'real me' online, previous research suggests that extraverts prefer SNSs due to their high offline saliency (Orchard & Fullwood, 2010). Indeed the results of this research show support for the social enhancement hypothesis, with extraverts using Facebook as an additional social medium to enhance their existing social life (rich-get-richer). In phase one, extraversion predicted motivations of new connections and recreation. These were evidenced in the way extraverts use Facebook features over introverts (through participation of social activities and updating their information). In terms of profile creation, extraverts reported that they liked keeping their profile information complete, but this was not substantiated by the content analysis. Extraverts tended to hold looser privacy settings supporting their motivations for new connections. The use of their nickname for their profile name emphasises that these users are being their self, with their offline social life directly translating on to their profile. Indeed, this was present from the phase two validation questions whereby extraverts were more likely to agree with voicing their opinion and joining groups even though others may not approve. A positive correlation was found with viewpoint B of phase three, which suggests that extraverts are using Facebook in a beneficial manner. They enjoy using the site, and it seems to be enhancing their social life with no obvious adverse effects.

Introverts on the other hand seem to use Facebook in a more restricted manner. They do not seem to get as involved and perhaps use it in a more passive

manner. Indeed, introversion was associated with lurking behaviours in phase one, and this was validated from the self-report measure of phase two.

Introverts were more likely than extraverts to report using Facebook the same time every day. It appears that these users show minimal interest in the site, and perhaps just look in to see what is happening. Introverts show a disinterest in social communication so it makes sense that they would use it in this manner. Furthermore, the biopsychological assumptions behind Eysenck's theory would suggest that introverts are looking for minimal stimulation. An association to 'perceived personality change' was made; yet this could not be seen within the rest of the thesis. As this was a generic questionnaire about online usage, the finding may reflect how introverts feel about using other forms of CMC, which they generally prefer.

9.2.2 PSYCHOTICISM

High psychoticism scorers seemingly use Facebook in a unique non-social manner. Users report a preference for using the more adventurous features of Facebook, such as external applications, adding events and promoting their self or business. Phase one details an apparent motivation by the factors of free expression and new connections. Although originally hypothesised that their motivation for free expression may be characterised by offensive usage (such as trolling or excessive swearing), this appears to be unfounded, with the exception of joining offensive groups that was not evident in lower scorers. Instead, such a motivation may be evidenced by their lack of regard to Facebook social norms. For instance, higher users are less likely to be concerned over 'Friending' behaviours, and reported less cautious behaviour in terms of the information they provide on their profile (phase two). However, further

research needs to explore their external social behaviour, as trolling would be more evident in groups or on the profiles of others. Psychoticism was associated to a higher level of disclosure, and although this was not overtly evident through the content analysis of profile disclosure, higher scorers held more lenient privacy settings. This may feed into their motivation of new connections. This motivation however, does not appear to be social in nature, and may reflect a preference to communicate with those unknown to them, through their use of external features, rather than those they know through their profile. The association between psychoticism and faking (phase one) was not substantiated; however it is expected that this may reflect the viewing of Facebook as a 'game' rather than a serious social platform. This may account for the lack of association with any explicated viewpoint, which all view Facebook as a type of social experience.

9.2.3 NEUROTICISM

High neuroticism scorers are motivated by escapism (phase one). It was suggested that these users may view Facebook as a less anxiety provoking method of social interaction or as a general distraction from life events. The thesis findings support both of these assertions. Neuroticism correlated with questionnaire items surrounding using Facebook as an alternative to other activities (phase two). However, high scorers also made use of many communication features. For instance, an association was found with private messaging. This form of communication may be considered low risk due to its asynchronous nature (promoting control over what is written). Furthermore, high scorers reported that they updated their status more frequently than lowers scorers, which may be seen as a type of one-sided communication

(similar to Guadagno et al.'s (2008) blogging study). Although it could not be substantiated from the results explored, it is suggested that such status updates may be a method of gauging support. These users did make deeper disclosures, however high scorers were no more likely to 'address the reader' of their profile or ask rhetorical questions than lower scorers. Thus it is suggested that high scorers do value SNSs as a medium of socialisation, yet can still find it anxiety provoking and as such use the site strategically; for instance by controlling the information on their wall, and by avoiding activities that could promote negative discussion (e.g. higher scorers were less likely to join offensive or 'pointless' groups). In phase three, neuroticism was found to associate with viewpoint C. These users have developed a love-hate relationship with Facebook. Neuroticism scorers hold a low stress threshold, meaning they will become distressed easier than lower scorers. Thus even though they value the site, the constant visual presence of social activity can be anxiety-provoking and have a detrimental effect on their self-esteem and existing relationships.

9.2.4 SOCIOTROPY

Sociotropic users appear to be very interactive in the way they use Facebook. They are motivated by the factors of conformity, information exchange and ritual usage. These users are very concerned about the impression they make on others. Their motivation of conformity surrounds their need to improve their social status as well as a fear of missing out if they did not use Facebook. Indeed such users are particularly cautious about what information they include on their profile as they will want it to be well received by others. This was supported through the validation scale of phase two, such as reporting that they checked Friends' profiles for similarities and put a lot of thought into their

Facebook use. Their motivation for information exchange reflects their highly sociable nature; which is backed by the large number of correlations with social features. The ritual motivation is characterised through updating their profile information; which may attract attention or be part of their impression management strategy. Sociotropy was negatively correlated to positive valence in disclosures. It was suggested that these users may employ false modesty or use self depreciation in an effort to gain attention and potentially sympathy or support. However, this was not evident in the content analysis. These users report a perceived personality change online; however, this does not appear to match their Facebook use which follows their personality predisposition. Therefore this may relate to other CMC use. Sociotropy was associated to viewpoint C in students. This viewpoint is characterised by monitoring behaviours and surveillance, which may help self-soothe these users surrounding their fears of missing out. However, feelings of ostracism and jealousy became apparent creating a vicious circle of additional checking. Such feelings can be extremely detrimental to these users who are prone to depression following events of perceived rejection or disapproval (Cappeliez, 1993). From a well-being perspective sociotropic users may be at risk by using Facebook, and further research into this area is urged. When considering non-students, sociotropy was associated with viewpoint D (viewing Facebook as a destructive environment to society). This is harder to explain from the findings of the thesis and may emphasise a lack of generalisability beyond students. As a tentative explanation, when considering Prospect Theory (Kahneman & Tversky, 1979), students may gain more benefits from Facebook which they value more so than the risk of negative consequences. Non-students however

may not be satisfied by the site. However, their fear of social rejection will mean that they would be reluctant to leave the collective resulting in viewpoint D.

9.2.5 AUTONOMY

Autonomy negatively predicted the motivation of experimentation, and it was suggested that this is due to high scorers seeking a high level of control. High scorers do not see socialisation as a primary focus. They may still enjoy socialising, but they do not see it as a means to improve their social standing or offline social life. This can be seen by their value of solo activities such as adding videos and viewing photos of others, as well as their individualistic manner of profile creation. These users reported higher levels of positive disclosures (phase one) as well as instances of offensive language and self-praise within their profile content. This suggests that these individuals are less concerned with how they are viewed by others, and the validation statements of phase two concur with this. With this in mind the negative association to the experimentation motive can be re-evaluated and explained by high users not having to lie. These users are completely open and show off their individuality without restriction. Within phase three, autonomy was associated with viewpoint D. Facebook does not seem to offer them any additional benefits. It does not enhance their social life, and although it does not negatively affect them (in terms of lowered self-esteem for instance), they do not like its prominence in offline socialisation. These users are individual in nature, and dislike the generalisation of Facebook into their social life. It is not that they do not enjoy using it sometimes; rather they do not like the lack of control behind choice as Facebook becomes more and more integrated into everyday life.

9.2.6 AGE AND SEX

Age seems to be a strong predictive feature of SNS use, with strong differences found between younger and older users. Younger users engage with Facebook in a heavier manner than older users, who tend to lurk online and show a passive outlook. Older users are motivated to use SNSs following the response of others (conformity), whilst younger users want to make new connections and use the site to procrastinate. Younger users are more likely to manipulate their profile and include more information. Age was found to be correlated with viewpoint C. These users have a love/hate relationship with Facebook. They monitor the site for information, which increases their perceived social standing. However, such excessive monitoring can also lead to relationship and self-esteem detriment. Although this may have severe implications in terms of identifying 'at risk' users, it may also reflect the findings from phases one and two suggesting that older users are less likely to interact with the site and are therefore less likely to experience such consequences. Future research should explore this association further.

Finally, women are motivated towards SNSs for social maintenance, whilst men are more likely to experiment, which may be explained by tweaking details on their profile as part of an impression management strategy. This is supported by the feature usage list from phase one whereby women reported using social features more frequently than men, whilst men were more likely to advertise themselves or their business. Men were more likely to report a perceived personality change, which may be linked with a higher level of self-disclosure. There were minimal differences in the type of disclosures by both sexes suggesting that men disclose more so in this context than they would offline. In terms of privacy men were a little less restrictive. From phase three, men were

found to correlate with viewpoint D in the student only condition, and C when considering all participants. It makes sense that men more than women dislike the saliency of Facebook. They tend to use it in a much more minimal manner, and although they appear to disclose more on Facebook they do not view it as a positive medium on the whole.

9.2.7 IMPLICATIONS OF RESULTS

This thesis has contributed a wealth of knowledge towards individual differences in the online environment. Directly, the personality typologies above establish norms, which can be used within future research for hypothesis generation. For instance, the thesis has pinpointed at-risk personality types, which can be targeted specifically within further research surrounding SNS addiction and cyberbullying. Such research implications are discussed in more detail below (section 9.4). Indirectly, the thesis has allowed for an exploration of mixed-methodologies within a novel manner. More specifically, it allows an evaluation of the uses and gratifications approach.

9.3 USES AND GRATIFICATIONS

Uses and gratifications theory has been drawn upon heavily as a framework of methodology for the current thesis. Phases one and two lend support for its assumptions. However, phase three casts doubt over the paradigm in its current form, within the current context. The active nature of Facebook, along with its collective popularity may distinguish it from past media. Although a strong starting point, further variables need to be considered to understand Facebook use as a media choice. With consideration to the thematic analysis and

uncovered viewpoints of phase three, a tentative model of usage can be proposed (Figure 2).

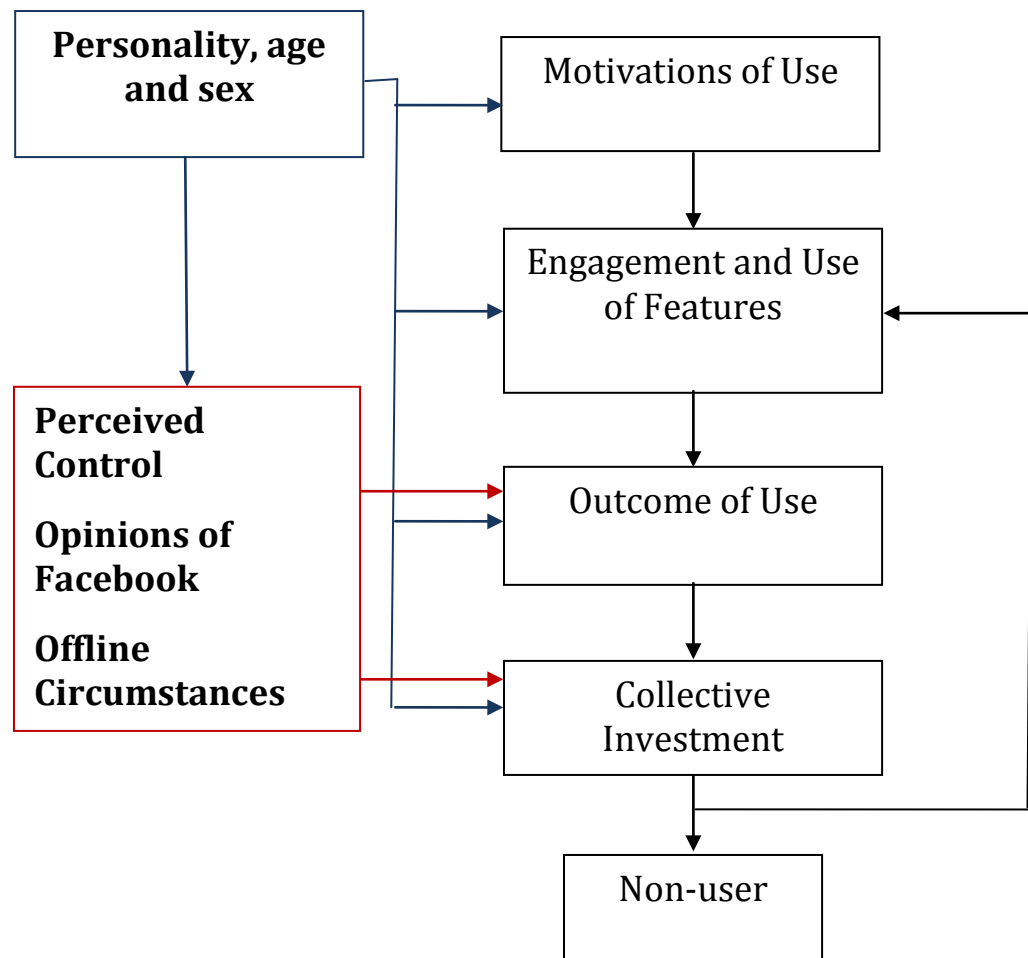


Figure 2: Proposed model of Facebook usage

Personality profiles will ultimately affect motivations for engaging with particular media. In the current thesis, this was demonstrated in phase one, where distinct motivations behind SNS use were credited to different personality traits. Moreover, in line with the uses and gratifications approach, a user's motivations for use appear to feed into their actual usage, and type of engagement. For example, if an individual is motivated to use SNSs for relationship enhancement then they will turn to the social features more readily than other ones. This is evidenced by comparing the results of phases one and two. For example, extraverts were motivated to use the site to make new connections (phase one), which was upheld by further correlational analyses with SNS features. In order to encourage new connections these users held more open privacy settings and were more strategic in their impression management strategy (phase two). Similarly, older users are more likely to be motivated by conformity (because they feel they have to use the site due to pressure from others – phase one), and as such only uphold minimal interaction with the site compared to younger users.

Motivations and site engagement may in turn determine outcomes and consequences of use. For example, sociotropic individuals who are motivated through ritualistic use due to a 'fear of missing out', appear to be more likely to use Facebook as an environment of surveillance (viewpoint C). As a consequence of this, they appear to suffer negative outcomes such as detriment to self-esteem. The thematic analysis also suggests that one's perceived control, opinion of Facebook as a social platform, and offline circumstances such as mood (which are all theoretically influenced by personality, age and sex), may further mediate the extent to which these outcomes are positive or negative.

These experiences may then feed back into usage. For instance, positive outcomes (such as viewpoint B) lead to further investment. However, the adherence to Facebook despite negative outcomes suggests the presence of further variable(s). From viewpoint D one could tentatively argue that there is a sense of 'collective investment', which may enforce continued usage for some users. Although not explored, it may be suggested that certain personality types may be more susceptible to the importance of collective investment than others. Future research into this model would benefit from exploring the 'Facebook dissenter'; i.e. those who have used Facebook but opted to leave the site following unsatisfactory outcomes. It would be interesting to explore circumstances in which collective investment itself does not become a justification for using the site alongside negative or unsatisfactory outcomes.

9.4 FUTURE RESEARCH

The current thesis offers a valid starting point towards personality typologies within Facebook engagement. Literature beforehand has neglected to explore the three-factor model and the sociotropy-autonomy-scale despite strong theoretical reasoning and media psychology supporting its incorporation. However, with the inevitability of novel research many future research questions have been posed.

Research studies within the thesis did not explore interactions between variables or mediation effects due to the scope of the research. The importance of a combinative exploration of variables is suggested as important in predicting social behavior (Fraib, 1969). Thus outside of this thesis it is hoped that the data set can be re-visited, with additional statistical exploration of key results.

Furthermore, although the thesis explores several factors explaining why and how personality types use Facebook and the outcome of such use, it has neglected to explore social interaction in terms of its prominence and content. Such a study would be difficult to produce ethically in a naturalistic setting, but would add weight to many of the ideas discussed. Moreover, research on the personality of Facebook Friends, and how such users interact with those of a similar or different personality would be of high interest.

Although this thesis started quite generic in its outlook on SNSs, it quickly became apparent that the research needed to focus on one particular site in order to reach the level of intricacy required. The research findings can perhaps be tentatively applied to similar SNSs other than Facebook. However, research into alternative sites, such as Twitter, is encouraged. This will be particularly useful in understanding the influence of website features (such as preference for anonymity) on behaviour. Furthermore, websites themselves are not static. Throughout the progress of this thesis Facebook has seen substantial changes. For instance, the introduction of active business and commercial pages has impacted on the items that users 'like'. Thus ongoing replication of research is essential.

The current thesis has focused heavily from a well-being perspective and at-risk personality groupings. In terms of implications of usage, several lines of investigation are suggested. First, research should focus on misuses of Facebook. For instance, procrastination was highlighted as a motivating factor of use. This could have strong implications in terms of work productivity from an occupational standpoint. Second, in terms of the current data set, research should follow up on the negative consequences highlighted within viewpoints C

and D. Specifically, it would be interesting to fully explore the boundary of Facebook as it crosses over from a social platform into something that is extremely detrimental to one's social life. Indeed, it would be interesting to explore if such a boundary exists, and perhaps gauge perspectives from those who have joined Facebook, but subsequently left (i.e. the Facebook dissenter). Third, practical implications surrounding the reduction of consequences of Facebook use for sociotropic individuals need to be investigated. In particular more research needs to focus on the possibility of diminished self-esteem levels and potential vulnerability towards depression resulting from jealousy and ostracism. This research may also have particular strong implications for adolescents who tend to suffer from low self-esteem in general (e.g. Hirsch & DuBois, 1991). Thus the development of potential coping strategies or an alternative means to raise self-esteem should be invested in.

Research should draw upon the suggestions for uses and gratifications within this context and identify the applicability of a new model following recommendations of the current thesis. More specifically research should explore "collective investment" of the "Borg" analogy in more detail, as such a suggestion has only been hypothesized through the current data. Again, non-users or dissenters would be of particular interest to explore this idea further.

Finally, the value of the research outside of a personality domain should also not be undersold. For instance, the thematic analysis and Q methodology results offer an insight into the Facebook experience regardless of personality.

Although this thesis takes a specific look at personality, generalised ideas can also be drawn from results. It would be useful to explore these ideas away from personality; or in light of additional variables.

9.5 FINAL WORD

The current thesis has explored personality in a deeper and more intricate manner than previous research. Furthermore, the personality variables explored, particularly sociotropy and autonomy, have rarely been investigated in this context, despite high theoretical reasoning for doing so. The thesis uses a mixed methods approach to draw on both subjective and objective data collection. This is thought to substantiate the data in a more comprehensive manner (Theiss-Morse et al., 1992).

It is inevitable that the novelty of the research poses further questions and lines of inquiry. However, the current research contributes a large starting point for this ever-growing area; asking why personality types are drawn to SNSs, how they use such SNSs, and how they experience SNSs as a part of their social being, as well as critically questioning underlying theories such as that offered by the uses and gratifications approach. The thesis also validates the inclusion of the three factor model and alternative personality characteristics such as sociotropy and autonomy within personality research over the five factor model.

CHAPTER TEN: REFERENCES

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CHAPTER ELEVEN: APPENDICES

11.1: CHAPTER 3

11.1.1 SOCIOTROPY-AUTONOMY SCALE

Personality | **Unique Ref:**

Please indicate what percentage of the time each of the following statements below applies to you, by using the scale to the right of the items. Choose the percentage that comes closest to how often the item describes you.

	0%	25%	50%	75%	100%
I feel I have to be nice to other people	0	1	2	3	4
It is important to me to be free and independent	0	1	2	3	4
It is more important that I know I've done a good job than having others know it	0	1	2	3	4
Being able to share experiences with other people makes them much more enjoyable for me	0	1	2	3	4
I am afraid of hurting other people's feelings	0	1	2	3	4
It bothers me when people try to direct my behaviour or activities	0	1	2	3	4
I find it difficult to say "no" to people	0	1	2	3	4
I feel bad if I do not have some social plans for the weekend	0	1	2	3	4
I prize being a unique individual more than being a member of a group	0	1	2	3	4
When I feel sick, I like to be left alone	0	1	2	3	4
I am concerned that if people knew my faults or weaknesses they would not like me	0	1	2	3	4
If I think I am right about something, I feel comfortable expressing myself even if other's don't like me	0	1	2	3	4
When visiting people, I get fidgety when sitting around talking and would rather get up and do something	0	1	2	3	4

It is more important to meet your own objectives on a task than to meet another person's objectives	0	1	2	3	4
I do things that are not in my best interest in order to please others	0	1	2	3	4
I like to take long walks by myself	0	1	2	3	4
I am more concerned that people like me than I am about making important achievements	0	1	2	3	4
I would be uncomfortable dining out in a restaurant by myself	0	1	2	3	4
I don't enjoy what I am doing when I don't feel that someone in my life really cares about me	0	1	2	3	4
I am not influenced by others in what I decide to do	0	1	2	3	4
It is very important that I feel free to get up and go wherever I want	0	1	2	3	4
I value work accomplishments more than I value making friends	0	1	2	3	4
I find it is of importance to be in control of my emotions	0	1	2	3	4
I get uncomfortable when I am not sure how I am expected to behave in the presence of other people	0	1	2	3	4
I feel more comfortable helping others than receiving help	0	1	2	3	4
It would not be much fun for me to travel to a new place all alone	0	1	2	3	4
If a friend has not called for a while, I get worried that he or she has forgotten me	0	1	2	3	4
It is more important to be active and doing things than having close relations with other people	0	1	2	3	4
I get uncomfortable around a person who does not clearly like me	0	1	2	3	4
If a goal is important to me, I will pursue it even if it may make other people uncomfortable	0	1	2	3	4
I find it difficult to be separated from people I love	0	1	2	3	4
When I achieve a goal I get more satisfaction from reaching the goal than from any praise I might get	0	1	2	3	4
I censor what I say because I am concerned that the other person may disapprove or disagree	0	1	2	3	4

I get lonely when I am home by myself at night	0	1	2	3	4
I often find myself thinking about friends or family	0	1	2	3	4
I prefer to make my own plans, so I am not controlled by others	0	1	2	3	4
I can comfortably be by myself all day without feeling a need to have someone around	0	1	2	3	4
If somebody criticizes my appearance, I feel I am not attractive to other people	0	1	2	3	4
It is more important to get a job done than to worry about people's reactions	0	1	2	3	4
I like to spend my free time with others	0	1	2	3	4
I don't like to answer personal questions because they feel like an invasion of my privacy	0	1	2	3	4
When I have a problem, I like to go off on my own and think it through rather than be influenced by others	0	1	2	3	4
In relationships, people often are too demanding of each other	0	1	2	3	4
I am uneasy when I cannot tell whether or not someone I've met likes me	0	1	2	3	4
I set my own standards and goals for myself rather than accepting those of other people	0	1	2	3	4
I am more apologetic to others than I need to be	0	1	2	3	4
It is important to me to be liked and approved of by others	0	1	2	3	4
I enjoy accomplishing things more than being given credit for them	0	1	2	3	4
Having close bonds with other people makes me feel secure	0	1	2	3	4
When I am with other people, I look for signs whether or not they like being with me	0	1	2	3	4
I like to go off on my own, exploring new places without other people	0	1	2	3	4
If I think somebody may be upset at me, I want to apologise	0	1	2	3	4
I like to be certain that there is somebody close I can contact in case something unpleasant happens to me	0	1	2	3	4
I feel confined when I have to sit through a long meeting	0	1	2	3	4

I don't like people to invade my privacy	0	1	2	3	4
I feel uncomfortable being a nonconformist	0	1	2	3	4
The worst part about being in jail would be not being able to move around freely	0	1	2	3	4
The worst part about growing old is being left alone	0	1	2	3	4
I worry that somebody I love will die	0	1	2	3	4
The possibility of being rejected by others for standing up for my rights would not stop me	0	1	2	3	4

11.2 CHAPTER 4

11.2.1 SNS QUESTIONNAIRE

Social Networking Sites - For example, MySpace, Facebook, etc.

Unique
Ref:

This questionnaire focuses on your use of social networking sites. If you do not use these please move on to the next questionnaire.

Q1. How many social networking sites are you a member of: _____

Q2. Which is your favourite social networking site? _____

Q3. On average, each time you log on to your favourite social networking site, how often do you stay on for? _____ hrs/mins* (***please delete as appropriate**)

Q4. How often do you log into your favourite social networking site? Please **tick one** box only.

- ☐ Three or more times a day
- ☐ Once or twice a day
- ☐ Once every few days
- ☐ Once a week
- ☐ Once every few weeks
- ☐ Less often than once every few weeks

Q5. Read each of the following activities, which you may choose to do whilst using social networking sites, and select your level of agreement by circling the appropriate number. If the feature isn't appropriate for the social networking sites you use, please leave the row blank.

I ...	Never					All the time
update my profile picture	1	2	3	4	5	6
update my profile information	1	2	3	4	5	6
join groups	1	2	3	4	5	6
view groups that I have already joined	1	2	3	4	5	6
create groups	1	2	3	4	5	6
view my friends' profiles	1	2	3	4	5	6
view profiles of people I do not know personally	1	2	3	4	5	6
use applications (e.g. listen to music, play games)	1	2	3	4	5	6
send private messages	1	2	3	4	5	6
write on other people's walls / comment on other people's profiles	1	2	3	4	5	6
"poke" people	1	2	3	4	5	6
add photos	1	2	3	4	5	6
view other people's photos	1	2	3	4	5	6
tag people	1	2	3	4	5	6
advertise events	1	2	3	4	5	6
add videos	1	2	3	4	5	6
keep track of upcoming events	1	2	3	4	5	6
sell things/ buy things on the marketplace	1	2	3	4	5	6
set up a group or profile to advertise myself (e.g. music band/ business)	1	2	3	4	5	6
update my status or mood	1	2	3	4	5	6
search / browse for friends	1	2	3	4	5	6
request people to add me as a friend	1	2	3	4	5	6
'eavesdrop' on other people's conversations	1	2	3	4	5	6
use social networking sites to blog	1	2	3	4	5	6

Q6. Read each of the following reasons for why you may choose to use social networking sites, and select your level of agreement by circling the appropriate number.

I use my favourite social networking site...	Strongly Disagree					Strongly Agree
because it's a good distraction from other things	1	2	3	4	5	6
because I can be who I want to be	1	2	3	4	5	6
to be like others	1	2	3	4	5	6
because I feel less embarrassed using this method compared to other methods	1	2	3	4	5	6
because it gives me something to do	1	2	3	4	5	6
because it allows me to express myself freely	1	2	3	4	5	6
because it helps me to relax	1	2	3	4	5	6
to maintain social contact	1	2	3	4	5	6
because I enjoy sharing information	1	2	3	4	5	6
because I can lie and no one will know	1	2	3	4	5	6
if I have nothing better to do at the time	1	2	3	4	5	6
because it's a quick way to communicate	1	2	3	4	5	6
because it's become a habit	1	2	3	4	5	6
to exchange information with others	1	2	3	4	5	6
to maintain a daily routine	1	2	3	4	5	6
to communicate with people I do not know	1	2	3	4	5	6
because it's free	1	2	3	4	5	6
because it is my favourite type of communication	1	2	3	4	5	6
because it allows me to think about what I want to say	1	2	3	4	5	6
to communicate with my online friends (i.e. those who you know online but have not met in real life)	1	2	3	4	5	6
to keep up with everything going on in the world	1	2	3	4	5	6
to keep myself occupied	1	2	3	4	5	6
to cure my boredom	1	2	3	4	5	6
because I have to	1	2	3	4	5	6
because it passes the time away	1	2	3	4	5	6
because it helps me feel less lonely	1	2	3	4	5	6
because everyone else does	1	2	3	4	5	6
because I like to feel like I'm in a community	1	2	3	4	5	6

to flirt	1	2	3	4	5	6
to entertain myself	1	2	3	4	5	6
because I find it simple and easy to use	1	2	3	4	5	6
because I can pretend to be someone else	1	2	3	4	5	6
to keep in touch with people	1	2	3	4	5	6
to communicate with those I know offline (i.e. family and friends you know in real life)	1	2	3	4	5	6
to find a potential partner/to date	1	2	3	4	5	6
for support	1	2	3	4	5	6
to communicate with distant relatives and friends	1	2	3	4	5	6
to forget about responsibilities in my life	1	2	3	4	5	6
because it has become part of my Internet routine	1	2	3	4	5	6
because it allows me to say what I want	1	2	3	4	5	6
because other people expect me to use it	1	2	3	4	5	6
because I find it enjoyable	1	2	3	4	5	6
to ask for/gain advice	1	2	3	4	5	6
to get information from others	1	2	3	4	5	6
because it's convenient for my needs	1	2	3	4	5	6
to escape reality	1	2	3	4	5	6
because it seems to be the thing to do	1	2	3	4	5	6
because it allows me to voice my opinions	1	2	3	4	5	6
because it lets me communicate with less pressure	1	2	3	4	5	6
because it's exciting	1	2	3	4	5	6
because it's fun to use	1	2	3	4	5	6
to give advice	1	2	3	4	5	6
so that I can make new friends	1	2	3	4	5	6

11.2.2 ONLINE BEHAVIOUR SCALE

Online Behaviour

Unique
Ref:

Please circle your level of agreement of the following statements.

	Strongly Disagree					Strongly Agree
I have faked a new identity online to explore the possibilities of being someone else	1	2	3	4	5	6
I'd rather read what other people are writing than write something myself	1	2	3	4	5	6
My personality changes when I'm online	1	2	3	4	5	6
I have faked a new identity online to be safe	1	2	3	4	5	6
I do things online that I would not do offline	1	2	3	4	5	6
I have never faked a new identity online	1	2	3	4	5	6
I behave differently online compared to offline	1	2	3	4	5	6
Whilst online I am willing to start conversations with others	1	2	3	4	5	6
I would consider myself to be a 'lurker' (someone who tends to read what other's have written rather than participate)	1	2	3	4	5	6
I have faked a new identity online for fun	1	2	3	4	5	6
I act the same online as I do offline	1	2	3	4	5	6
I like to actively take part in online discussions	1	2	3	4	5	6
I have faked a new identity online to wind people up	1	2	3	4	5	6
I do not start conversations online	1	2	3	4	5	6

Please fill in the following demographic information:

Age: _____ Sex: _____

11.2.3 SELF-DISCLOSURE SCALE

Online Communication

Unique
Ref:

Please circle your level of agreement to the following statements.

	Strongly Disagree		Neither Disagree nor Agree		Strongly Agree
I don't express my personal beliefs and opinions to those I meet online very often	1	2	3	4	5
I usually communicate about myself for fairly long periods at a time with those I meet online	1	2	3	4	5
I do not often communicate about myself with those I meet online	1	2	3	4	5
I usually disclose only positive things about myself with those I meet online	1	2	3	4	5
I do not always feel completely sincere when I reveal my own feelings, emotions, behaviours, or experiences to those I meet online	1	2	3	4	5
When I express my personal feelings with those I meet online, I am always aware of what I am doing and saying	1	2	3	4	5
My statements about my feelings, emotions, and experiences to those I meet online are always accurate self-perceptions	1	2	3	4	5
I often disclose negative things about myself to those I meet online	1	2	3	4	5
I often discuss my feelings about myself with those I meet online	1	2	3	4	5
I am always honest in my self-disclosures to those I meet online	1	2	3	4	5
On the whole, my disclosures about myself to those I meet online are more positive than negative	1	2	3	4	5
The things I reveal about myself to those I meet online are always accurate reflections of who I really am	1	2	3	4	5
I am not always honest in my self-disclosures with those I meet online	1	2	3	4	5
When I reveal my feelings about myself to those I meet online, I consciously intend to do so	1	2	3	4	5
I always feel completely sincere when I reveal my own feelings and experiences to those I meet online	1	2	3	4	5
My statements of my feelings are usually brief with those I meet online	1	2	3	4	5

11.3 CHAPTER 5

11.3.1 QUESTIONNAIRE

Facebook Use and Profile Content

Unique
Ref:

Age:

Sex:

☐

Male

☐

Female

Section A: Profile Layout

Log into your Facebook account, and view your profile. For tick-box questions, choose your answer by clicking the box you agree with. If a question has a larger box, you can write or copy and paste your answer into the grey box provided.

General

1a. Who/ what is in your current profile picture?

☐

I have not got a profile picture

☐

Just me - no-one else

☐

Me with my partner

☐

Me with my friends and/or family (may include partner as well)

☐

Friends/Family without me (may include partner as well)

☐

Other representation of myself (for instance, cartoon picture or body part)

☐

Famous person/people

☐

No people (for instance, picture of a landscape, pet or object)

☐

Other (please explain:)

1b. Why did you choose this picture?

2. Thinking back to previous profile pictures you have had, what type of picture do you tend to use most?

☐

I have never had a profile picture / never changed my profile picture

☐

Just me - no-one else

☐

Me with my partner

☐

Me with my friends and/or family (may include partner as well)

☐

Friends/Family without me (may include partner as well)

☐

Other representation of myself (for instance, cartoon picture or body part)

☐

Famous person/people

☐

No people (for instance, picture of a landscape, pet or object)

☐

Other (please explain:)

3. Have you ever posed for a photo to deliberately use it as your profile picture?

☐

Yes, I always use posed photos

☐

Yes, I have done this; but not always

- ☐ No
☐ Not Applicable / Never had a profile picture

4. What is your current status (copy and paste your status into the box; if you do not currently have a status write NONE)?

5. How many tagged pictures of you are there on Facebook (*See the bracketed number under your profile picture*)?

6. What have you currently got written in the box below your profile picture (copy and paste your answer; if the box still says "Write something about yourself", write NONE)?

Side Boxes (On the left-hand side):

7. What types of information are visible in the *Information* box on the left of your profile (e.g. networks, birthday, etc)?

8. How many Facebook friends do you have (look in the *Friends* box on the left hand side)?

9. How many pictures do you have visible in your *Friends* box?

- ☐ 6
☐ 9
☐ 12

10. Have you set your *Friends* box to show particular friends all the time?

- ☐ Yes
☐ No, but didn't know I could – I will do in the future
☐ No, but didn't know I could – I still won't though
☐ No, but already knew I could if I wanted

11. What other Boxes do you have in your side menu (Please write the heading of each box, followed by a comma - eg, photos, specific application names, etc)?

12. What tab names do you have running along the top of your profile (Please write in each tab name, followed by a comma – eg, wall, info, photos, etc)?

13. How many photo albums do you have on your profile (click on the photos tab if you don't have a *photos* sidebox)?

14. How many videos do you have on your profile?

Wall

15. Do you tend to remove things off your wall?

- ☐ Yes
☐ Sometimes
☐ No

16. Do you tend to “like” your own statuses or comments (i.e. do you press *like* under your own comments and status updates)?

- ☐ Yes
☐ Sometimes
☐ No

17. Do you tend to “like” other people’s comments and messages on your wall?

- ☐ Yes
☐ Sometimes
☐ No

18. Do you tend to “like” other people’s comments and messages on other people’s walls?

- ☐ Yes
☐ Sometimes
☐ No

Section B: Profile Content

In the following section you will be asked more specific questions about the content of your profile. Facebook provides you with several prompts to create your profile. Below is a table containing possible prompts. You are asked to copy and paste your answer to each prompt in the grey square provided.

If you click the “Info” tab at the top of your profile screen (next to ‘Wall’) you will be able to see your answers to each prompt. Go through each prompt, and work your way through the table.

*You are reminded that your answers will be anonymised. However, you are free to replace any words or details with stars (e.g. *** ** ***) if you do not wish the researcher to read what is written. It is emphasised that you may wish to replace names or identifying information. There is no need to star out swear words. Not all Facebook prompts require answering, so if you have not answered a prompt, please type in NONE.*

For prompts you have answered, please also answer how accurately your answer reflects your offline ‘real’ life you, in the right hand column. If you require help at any time, please ask the researcher

Prompt:	‘Copy and Paste’ or re-type your answer into the grey box (See above for further instructions).	If you provided an answer for the prompt, do your answers accurately reflect the truth about your offline “real” life?
Basic Information		
Gender: Birthday: Hometown: Family	<input type="checkbox"/> Answer Given	Choose... Choose... Choose... Choose...

Members: (<i>this could include siblings, parents, etc.</i>) Relationship Status: Interested in: Looking for: Political Views: Religious Views:	<input type="checkbox"/> Answer Given <input type="checkbox"/> Answer Given	Choose... Choose... Choose... Choose... Choose...
Personal Information		
Activities: Interests: Music / Favourite Music: Television / Favourite TV Programmes: Movies / Favourite Films: Books / Favourite Books: Favourite Quotations: Bio / About Me:		Choose... Choose... Choose... Choose... Choose... Choose... Choose... Choose...
Prompt:	Tick the box if you included an answer to the following prompts.	If you provided an answer for the prompt, have you been truthful to your offline life?
Contact Information		
Email: IM Screen Name(s): Mobile Phone: Landline: Address: Town/City: Neighbourhood: Postcode: Website:	<input type="checkbox"/> Answer Given <input type="checkbox"/> Answer Given <input type="checkbox"/> Answer Given <input type="checkbox"/> Answer Given <input type="checkbox"/> Answer Given <input type="checkbox"/> Answer Given <input type="checkbox"/> Answer Given <input type="checkbox"/> Answer Given	Choose... Choose... Choose... Choose... Choose... Choose... Choose... Choose...
Education and Work		
University: Course:	<input type="checkbox"/> Answer Given <input type="checkbox"/> Answer Given	Choose... Choose...

Secondary School:	<input type="checkbox"/> Answer Given	Choose...
Employer:	<input type="checkbox"/> Answer Given	Choose...
Position:	<input type="checkbox"/> Answer Given	Choose...
Prompt:	'Copy and Paste' or re-type your answer into the grey box (See above for further instructions).	If you provided an answer for the prompt, do your answers accurately reflect your offline "real" life (are you a fan of these things in your offline life)?
Groups		
Member of:		Choose...
How many groups are you a member of (look next to See All)?		N/A
Pages		
Pages:		Choose...
How many pages are you a member of (look next to See All)?		N/A

Section C: Profile Settings

In this final section you will be asked more specific questions about the profile settings. Click "Account" and then "Account Settings" from the blue bar at the top of your profile and answer the following questions.

Look at the first two settings: name and username. The username setting will not be visible if you have changed it twice – if you do not know your username in this instance please ask the researcher for help.

Settings	For the answer you have given Facebook, which of the following do you agree with...?
Name:	Choose...
Username:	Choose...

The 5th option says "Privacy". Click on manage to the right of this. Then click on the first option "Profile Information/ Personal Information and Posts".

Information type	For each type of information, please state which privacy setting you have selected...
Bio:	Choose...
Likes and Interests:	Choose...

Birthday:	Choose...
Religious & Political views:	Choose...
Family and relationship:	Choose...
Education and work:	Choose...
Photos and videos of me:	Choose...
Photo Album:	N/A - See below
Posts by me:	Choose...
Allow friends to post on my wall:	Choose...
Posts by friends:	Choose...
Comments on posts:	Choose...

Photo Albums: If you click on “Edit Settings”, you can see your photo albums. The following options may only be applicable if you have added photos to your profile.

<i>Photo</i>	<i>For each type of photo, please state which privacy setting you have selected...</i>
Profile Pictures:	Choose...
Other photos (most used option):	Choose...

Please go back to the privacy setting screen, only this time click on the second option “Contact Information”. Complete the following box as before:

<i>Information type</i>	<i>For each type of information, please state which privacy setting you have selected...</i>
IM Screen name:	Choose...
Mobile phone:	Choose...
Other phone:	Choose...
Current address:	Choose...
Website:	Choose...
Hometown:	Choose...
Add me as a friend:	Choose...
Send me a message:	Choose...
email:	Choose...

Finally, go back to the privacy page and click on the 4th option “Search”. Note your answers below:

<i>Photo</i>	<i>For each item, please state which privacy setting you have selected...</i>
Facebook search results:	Choose...
Public search results:	Choose...

11.3.2 CODEBOOK

Set of Prompts 1	
Facebook Prompt	Number of words
Headline	As found by Microsoft's Word Count
Status	
Favourite Quote	
Biography	

Set of Prompts 2	
Facebook Prompt	Number of Items
Activities	Count number of individual items listed. Generic description counts as one item (e.g. I like all things)
Interests	
Music	
TV	
Film	
Books	

	Codes	Instructions
Pictures?	0=None, 1=Present	Any evidence of a pictorial element across prompts – e.g. emoticons, repetitive use of punctuation?
Reader addressed?	0=None, 1=Present	Any evidence of rhetorical questioning, and uses of the word 'you'?
Offensive Language?	0=None, 1=Present	Any evidence of swearing, or discussion in an offensive context?
Self-deprecation?	0=None, 1=Present	Any evidence of the profiler putting themselves down, even in a humorous manner, or using false modesty?
Self-compliments?	0=None, 1=Present	Any evidence of the profiler complimenting themselves, even in a humorous manner (e.g. I'm looking good today)?
Humour?	0=None, 1=Present	Any evidence of overt humour, such as LOL, LMAO, laughing emoticons, etc.?

These items are specific to the second set of prompts above

Descriptiveness	0=None, 1=Added description	Did the profiler just list items they like, or did they make any additional comments
-----------------	-----------------------------	---

		<i>(e.g. I love the Beatles rather than Beatles)?</i>
Specificity	0=Less specific, 1=Very specific	How specific were majority of the items listed? Name of bands, TV shows, etc would be specific, but genres or generic descriptions (e.g. <i>anything</i>) would be less specific.

This section refers to groups and pages listed

Offensive Groups	0=None, 1=Present	Is there any evidence of membership to offensive groups (those containing offensive words in the title, or of an offensive context)?
Random Groups	0=None, 1=Present	Is there any evidence of membership to random groups (those that do not seem to have a point. For instance, they do not tell you anything about the profiler's likes, dislikes. E.g. <i>Join if your name begins with...</i>)?
Serious Groups	0=None, 1=Present	Is there any evidence of membership to serious groups (those that support a particular cause, or are concerned about a particular issue)?

This section refers to all prompts

Level of disclosure	0=shallow, 1=deep	Is there any evidence of emotions, needs, dreams or self-awareness in what the profiler writes?
---------------------	-------------------	--

This section refers to the status

Grammatical convention	0=grammatically correct, 1=grammatically incorrect	Does the status read in a grammatically correct manner (e.g. <i>Joe B is doing...</i> rather than <i>Joe B Doing</i>)?
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11.3.3 CONTENT ANALYSIS SCORE SHEET

ID Number: _____

Facebook Prompt	Number of words
Headline	
Status	
Favourite Quote	
Biography	

Facebook Prompt	Number of Items
Activities	
Interests	
Music	
TV	
Film	
Books	

	Code
Pictures?	
Reader addressed?	
Offensive Language?	
Self-deprecation?	
Self-compliments?	
Humour?	

Descriptiveness	
Specificity	

Offensive groups	
Random groups	
Serious groups	

Level of disclosure	
---------------------	--

Status grammar	
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11.3.4 MOTIVATIONS VALIDATION QUESTIONNAIRE

Facebook Use and Profile Content

Unique Ref:

For each statement circle your level of agreement.	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Slightly Agree (4)	Agree (5)	Strongly Agree (6)
I use Facebook when I should really be doing something else.	1	2	3	4	5	6
I use my status updates to make a statement.	1	2	3	4	5	6
I am not afraid to join groups I believe in, even if I know my friends won't approve.	1	2	3	4	5	6
I check my friends' profiles to make sure mine is similar.	1	2	3	4	5	6
I am conscious of what I write in case I offend other people.	1	2	3	4	5	6
I like my profile picture and status to be a bit different from everyone else.	1	2	3	4	5	6
I have posted something sarcastic or offensive on a group or fan page.	1	2	3	4	5	6
I like to fill in all of the information prompts so my profile says a lot about me.	1	2	3	4	5	6
I tend to "like" things my other friends have "liked" even if I don't really have an opinion on it.	1	2	3	4	5	6
I prefer private messaging or the chat function over wall-to-wall chat.	1	2	3	4	5	6
I use Facebook to avoid doing work.	1	2	3	4	5	6
I like to share links to other things (such as, videos and news articles, etc) on my profile.	1	2	3	4	5	6
My profile is unique and individual.	1	2	3	4	5	6
My status updates allow me to voice my opinion.	1	2	3	4	5	6
I tend to join groups/ pages that my friends have already joined.	1	2	3	4	5	6

My status updates show my individuality.	1	2	3	4	5	6
I regularly change my likes (e.g. books, films) to keep my profile updated	1	2	3	4	5	6
I make sure I tag all my photos with the correct people.	1	2	3	4	5	6
Once I join a group I never really look at it again.	1	2	3	4	5	6
Before this study I was unaware of my privacy settings.	1	2	3	4	5	6
I don't mind if strangers see my profile.	1	2	3	4	5	6
I have more than one account to keep people separate.	1	2	3	4	5	6
I always keep a webpage open with Facebook on when I'm online; even when I am doing something else.	1	2	3	4	5	6
I use Facebook in the same way every time I go on.	1	2	3	4	5	6
I make more friend requests than I receive.	1	2	3	4	5	6
My profile is a true comprehensive snapshot of my offline life.	1	2	3	4	5	6
I have become a fan of something/ joined a group that I do not agree with, so I can argue my point.	1	2	3	4	5	6
I regularly check the friend suggestions page to see if there is anyone I want to add.	1	2	3	4	5	6
I have hidden some friends from my news feed list.	1	2	3	4	5	6
I get addicted to application games, such as Farmville.	1	2	3	4	5	6
I log on to Facebook when I think my friends will be on.	1	2	3	4	5	6
I only use Facebook when I have a specific reason to.	1	2	3	4	5	6
I add people I don't particularly like just to get more friends.	1	2	3	4	5	6
I put a lot of thought into my Facebook use as I want to give off the right impression.	1	2	3	4	5	6
I like it when I am tagged in other people's photos.	1	2	3	4	5	6
I only choose profile pictures that make me look good.	1	2	3	4	5	6

I spend more time looking at or updating my own profile, than I do looking at or contributing to other people's profiles.	1	2	3	4	5	6
I like applications where you play with or compete against other people.	1	2	3	4	5	6
I would feel bad or guilty if I declined or ignored a friend request from someone I didn't know	1	2	3	4	5	6
I enjoy adding Applications to my profile.	1	2	3	4	5	6
I use Facebook's chat facility.	1	2	3	4	5	6
I like applications that allow you to send and collect gifts with friends.	1	2	3	4	5	6
I use Facebook to talk to my friends so that I don't need to contact them in real life.	1	2	3	4	5	6
I go on Facebook the same time every day.	1	2	3	4	5	6
I am happy to decline friend requests.	1	2	3	4	5	6
I 'talk' to Facebook friends (e.g. comment on their statuses) when I probably wouldn't speak to them in real life.	1	2	3	4	5	6
I don't tend to write much on Facebook – I mainly just read what other people are saying.	1	2	3	4	5	6
I would feel bad or guilty if I declined or ignored a friend request from someone I know – even if I don't particularly like them.	1	2	3	4	5	6
I enjoy getting Facebook notifications through email as they keep me updated.	1	2	3	4	5	6
My status updates reveal a lot about my personal life	1	2	3	4	5	6

11.4 CHAPTER 6

11.4.1 ADDITIONAL KEY QUOTES

THEME 1: SOCIAL COMPARISONS

Quotes supporting downward comparisons and feelings of jealousy.

1: “maybe i should delete it cos sometimes it makes me feel jeleous of my friends”

2: “Yeah when I first started uni I had a pretty rough time and used to get SO depressed when I saw people I knew, people like me, having endless pictures of them tagged on their profile.. kinda depressing that the amount of pics I have is just in the double digits. I guess I extrapolate from people’s endless pictures that they are having WAY much more of an exciting social life than me, whereas I just seem to have not lived the “*university social life*” at all and kinda descended into nothingness. I know photos mean nothing really but gah.”

3: “Does anyone else find facebook depressing? When i go on it, which is like every other day, I click on my friends who are all at different unis and they are all having the time of their life. Their walls are filled with comments from their 'new' friends and m y facebook has no new friends, and we all started uni at the same time.”

Quotes supporting the idealised perception of others’ happiness.

4: In response to “*whenever I click on it, I just feel extremely depressed...*”: “I get what you mean. All Facebookers seem to have perfect lives”

5: “I think one of the big problems is that, on Facebook, even unpopular or

boring people can create a facade of being popular, outgoing people, which makes other boring people think that everyone out there's having a whale of a time and thus makes their feeling of isolation grow. It's damned easy to lie on the internet, particularly on Facebook.”

Quote supporting the destructive nature of comparing applications.

6: “None of this comparing people... hot or not... no mercy... etc. By the very fact I completely disregard these applications I am happier using FB. For me, it's just a way to keep in touch with people and share memories (pictures, quotes...). I do know people who see applications such as "compare people" as the be all and end all, and actually get upset/angry if they're voted down by a friend or something.”

THEME 2: SOCIAL EMPOWERMENT

Quotes supporting shared intimacy and empowerment of community socialization.

1: “i think because in this day we have mobiles and social network sites, you kinda never leave friends, you just acquire more.”

2: “It's nice to let your friends know what's going on in your life - I like hearing about my friends' exciting holiday plans and such.”

3: “the purpose of facebook is to be a primary medium for social interaction amongst friends/family, so it is entirely understandable that people will use statuses to share good news.”

4: “One of the niceties of facebook (in my opinion) is that I have been able to get into contact with people i knew back in year 5, nearly 8 years ago. Not only this,

it is also a good way of keeping in touch with your current friends. For example I am not leaving school, off to uni, obviously everyone is going to different places. Facebook simply makes it easier to stay in touch.”

Quotes supporting how Facebook is valued for its practicalities.

5: “I love Facebook. Excellent way to share photos with friends, addiction to Bejewelled, good way of finding out who got offers where, etc..”

6: “My main reason for doing so was to keep in touch with people once we all go our separate ways at the end of next year. It'll be interesting 10 years down the line to see what people are up to 😊”

Quote to support nostalgia element enhances well-being.

7: “It's not trying to prove something. I found photos from nights out a couple of years ago and it was really nice to know that the memories of that are available to me. I'm a sentimental person, and facebook happens to facilitate that.”

Quotes to support social power over others.

8: “Haha this is so true. But, now, its these people who are trying to add *me* and I'm rejecting them 🙄 why would I want them on Facebook when I haven't seen them for 5 years since they were looking at me like a bit of dirt they had on the underside of their shoe? No thank you.”

9: “Oh but you've gotta admit it's amusing when you see the same person ending and beginning a new relationship every week. Someone on my friend list was doing this recently, never bothered to check if it was with the same person or different people.”

10: "There are so many stupid pricks on my friends list. I love ripping the **** out of them whenever they make a stupid status (all the time)."

Quote supporting social power through impression management.

11: "I'm not popular at all, I just like to use the internet to look popular. And I don't bother lying about it."

THEME 3: SOCIAL EXCLUSION

Quotes supporting feeling ostracised.

1: "noone still replies or bothers to send me messages 🙄"

2: "the worst is when you've got on your mini feed that your circle of friends are all going to a party (and you know the person really well) but they haven't invited you and it's on your mini feed that so many of your friends have"

3: *In response to the thread 'Does Facebook make you feel socially inadequate'* : "It does sometimes, but only when I end up looking at 2000 photos of a party everyone was invited to but me 🙄"

4: "And don't get me started on statuses. You'll see *"such and such has joined <random birthday or night out event>"* and wonder why you weren't invited too"

Quote supporting association between social exclusion and social comparison.

5: "With regards to facebook in general, i completely understand. It *does* always feel like you have no social life/friends who really don't like you, when they seem to get invited to dozens of parties and you 0!"

THEME 4: SOCIAL DETRIMENT

Quotes supporting friend annoyances and judgements.

1: "What I don't like is the far too much information status updates, do people not realise they are telling ARE their friends these things? Cringe!"

2: "This reminds me of a girl who added me who apparently went to school. I think she updated her status about 20 times a day and it was all about her failing relationship and about how men are bastards. Then when she finally separated with her boyfriend it was all about how she was desperate for sex and couldn't wait to pull that night. I can't believe people broadcast that kind of thing on the internet. I've hidden her from my newsfeed she was so annoying."

3: "It's horrible because the amount of information about someone is inversely proportional to the amount of judgement you derive from that information."

Quotes supporting friendship re-evaluations due to acts of de-Friending.

4: "You search their name and at the top it says 'Add as a friend' and you're like 🤔...😱 he *deleted* me!"

5: "now she seems to treat me with contempt for deleting her"

Quotes supporting relationship jealousy.

6: "I used to LOVE facebook, but it's hard looking at your other halves profile and seeing photos of them with other guys/girls – it just is! Jealousy is a natural and very strong emotion and i think facebook can be quite unhealthy, especially when you constantly 'check' your partners to try and catch them out."

7: "sometimes FB is the cause of jealousy/breakups"

Quote supporting impact of visual saliency.

8: "when i was semi-seeing a guy last year, on my news feed let me know his relationship status had changed to 'in a relationship' with some other cow ARGHGHGH"

THEME 5: SOCIAL IMPACT

Quotes supporting Enhancement vs. Compensation debate.

1: "This said though - it has been a great way to keep in touch with friends across the globe, and without it I probably would have lost all contact with them."

2: "It's not about being social in front of a computer screen! If people who did that had Facebook, there'd never be any photos of them having fun with friends would there? It's not about that at all, for many its a form of free communication and expression."

3: "People go out because they have "buzzing" social lives. NOT for pictures, the majority of the people who go out now would go out as much even if they didn't have facebook, I've got hundreds of pics but I haven't said, "take a picture", it just happens (new camera phones and all). People go out to have a good time."

4: "You don't take pictures because you have a thriving social life. You take pictures because you have nosocial life and take as much advantage of the situation to prove that you do. You may fool others (e.g. people like you who believe), but you shan't fool yourself."

5: "i do 😊 its a fun easy way to make freinds. as i have none it comes in handy."

6: "I have 873 friends and I do keep in contact with most of them on a regular basis. it does mean I spend more of my spare time on the internet

communicating with them.”

7: “To a certain extent I think its true. I have loads of friends on my FB, but no one seems to bother with me at all in real life. It seems that writing on a wall (on FB) has replaced phone calls, emails etc well it has in my life.”

Quotes supporting offline impact.

8: “I love my Facebook, and I can only think of one or two people I know who don't have it. Its so useful. Before Uni I met my flatmates and seminar people online. Cut so many of the worries out of going to Uni for me.”

9: “I have just under 200 friends on facebook, I know all of them in real life and I have them there as an easy way to contact them if I need them. For example, there is one person I am friends with on facebook who I spoke to a bit but wasn't particularly friends with, but recently needed their help with something and so I sent them a message on facebook, its alot easier than having everyone's emails and most people check their facebook semi regularly. I use it just to have a chat about when we were younger or to ask people things if I need help or info on a topic that I know they know alot about...”

Quotes supporting destruction of offline socialisation.

10: “There's at least one girl (spreading to 2 now) who everytime she goes out, for any reason whatsoever, has to rip out her little camera and take as many shots as possible. Then ASAP, literally ASAP (she's done it while we're round her house before), she can't wait to upload each and every one of them onto FB, and then its a race between her and a couple of her sad little friends tagged.

Honestly, I used to think she wanted to preserve memories or whatever, but

now its just got to a point where she wants a huge number underneath her name for the number of photos she's tagged in. It's very much this 'oooohhh I am tagged in lots of photos with lots of my friends; therefore I am popular' attitude, and it really pisses me off, because we can't have a fun time now because we're too busy posing for bloody photos! 🙄”

11: “Another thing which annoys me....People undating facebook from the middle of a club on their mobile.....Shouldn't they be enjoying their night rather than worrying about updating their status?”

12: “someone said to me once *"If you don't bring a camera the night never happened!!"*”

THEME 6: OPINIONS OF FACEBOOK

Quotes supporting the perceived seriousness of Facebook.

1: “I'm not at all suprised by this, it's sad how seriously a lot of people take facebook.”

2: “Dont you people know that the number of photos's taken off you, and the number of friends you have combined give you your universal popularity rating. You carry this number with you for as long as you will live, and it defines how great a person you are!”

Quotes supporting idea of users becoming too invested.

3: “People just take it way too seriously. Some even change their status every hour. As if anyone cares if you are watching tv or eating or got pissed last night.”

4: “I tend to find that the girls seem to pay so much attention to detail through it, the amount of times girls have told me things about my facebook profile is

incredible (from the most minor update to a large one)”

5: “You stupid people think too much about it. They had their reason(s). Chill the **** out. Jeez.”

6: “Not only did I get over it, but I felt flattered after being advised that this this ex-colleague was probably so intimidated by this that she couldn't bear to see me in her mate's friends list 😂”

Quotes supporting Facebook as a fake environment.

7: “Since my older brother started "facebooking" as he calls it, he often just goes out so he can update his status or add more pictures to his gallery. It's bloody sad I think. 😞”

8: “I had Facebook but deleted it due to wanting to socially isolate myself from people who, for some strange reason, act completely different on the internet.”

9: “I hate Facebook sometimes for being so false.”

10: “I deleted my facebook account as i could not stand how fake it was. It's all about self-promotion and i can't be dealing with all that nonsense.”

THEME 7: PERCEIVED CONTROL

Quote supporting perceived privacy invasion.

1: “I find it weird to think that my new status pops up on people's facebook when they either don't know me at all or barely know me.”

Quotes to support increased perceived control results in a more positive experience.

2: “Playing around with the privacy settings sure makes life easier”

3: "if people keep their profiles to private, there isn't the need for this. It's about control, If you're responsible, like most are, this is a harmless networking site."

4: "The group and app invitations are cruel I have to agree with you, but it only takes a second to press that 'ignore' button...if you feel like Facebook is controlling you, then try to control it."

Quotes emphasising difference between those who fear repercussions of behavior.

5: "Yeah but if you do not want to accept people, they are going to say that you are stand offish/ full of yourself/ unfriendly"

6: "You don't have to keep in contact with everyone. If you don't like people
***** delete them or don't add them in the first place"

7: "About the no pic thing – if you do that, you'll be ridiculed. Be it openly or privately. If you're not ridiculed, then you're still seen as a lesser being because you represent yourself as unsocial."

Quotes supporting enforced usage.

8: "I mean some people will just say if you don't want it don't use it.....but the fact that almost all social events are broadcast (ONLY) on fbook means you have to its social suicide if you dont"

9: "part of me wishes that it would just disappear (but then another social network will spring up somewhere). Sadly thre is no escape from them these days and it makes sense for me to have one whilst all my mates do (how sad)"

Quotes to support an addiction.

10: "it's like a silent killer of time, I despise FB but something always tells me to go on Fb! 😞"

11: "But i just can't help it, i'd prefer know what they're doing than be naive and bored at home. Ooo I'm so stupid. Just 😞"

12: "for some reason it's like morbid curiosity to spend an hour looking at the holiday snaps of some person you don't even know. 🤔"

13: "They've turned me into a stalker that I didn't even want to be!"

THEME 8: OFFLINE CIRCUMSTANCES

Quotes to support offline personality translates online.

1: "Basically the only people at my school who don't have facebook are the people who never go out, or talk to people, or anything."

2: "People with 500 friends are popular people though. My friend has that many friends on her facebook account, it just means she's really extraverted and gets on well with many."

3: "Yeah being deleted or rejected is kinda hurtful but I guess I'm not that thick skinned anyway"

4: "I've never had a real friend in my life, but I have 70-80 or so on Facebook. Trouble is, there's still no point using Facebook, cos none of those people like me or even know me, so it's not like I can suddenly start messaging them on FB chat."

Quotes to support feelings and mood translating online.

5: "Then again my life isn't depressing in the first place and I have an active-

enough social life so I suppose I wouldn't find it depressing.”

6: “TBH its only people with **** lives who complain about this”

7: “Facebook isn't depressing in itself, but it can become a very unhealthy way to spend your time, particularly if you're already dissatisfied with your life. It has a tendency to suck you in, and make you become too concerned with appearances which are very often false.”

11.5 CHAPTER 7

11.5.1 LIST OF STATEMENTS

- 1 Facebook has made me nosey
- 2 When life is bad, you turn to Facebook
- 3 Part of me wishes Facebook would disappear
- 4 Facebook sometimes makes me feel popular
- 5 Facebook enhances my relationship insecurities
- 6 Sometimes I get jealous of my Facebook friends
- 7 Facebook is designed to breed paranoia in relationships and friendships
- 8 It's just Facebook – I don't pay too much attention to it
- 9 Facebook doesn't reflect the 'real' me
- 10 Facebook sometimes makes me feel left out or forgotten by my friends
- 11 People would forget my existence without Facebook
- 12 It's nice to share what everyone's up to
- 13 Being deleted/rejected on Facebook is the ultimate insult
- 14 Facebook sometimes makes me feel like a loser compared to everyone else
- 15 Facebook reminds me of my offline flaws
- 16 There's no escape from Facebook. No Facebook = Social Recluse
- 17 If you have no offline friends; you'll have no Facebook friends
- 18 I sometimes feel intimidated by others on Facebook
- 19 My Facebook behaviour could probably be considered unhealthy
- 20 Facebook makes relationships harder
- 21 If I didn't use Facebook my offline social life would deteriorate
- 22 Facebook is ruining offline social occasions

- 23 Facebook has helped to ruin or upset a relationship or friendship
- 24 I can't help but compare my life to others' on Facebook
- 25 Facebook can really cheer me up
- 26 I find I easily lose vast amounts of time on Facebook
- 27 I feel like Facebook keeps me in the social loop
- 28 My personality differs on Facebook to real life
- 29 Facebook is a fake environment
- 30 I feel happy when others post about their happiness
- 31 There are a lot of politics involved in Facebook. I have to consider my behaviour carefully
- 32 Facebook has hurt me
- 33 Facebook has made me more isolated from my friends
- 34 Facebook has had a large impact on my offline life
- 35 I feel socially inadequate when I see my friends have been somewhere without me
- 36 Being deleted/rejected marks the end of the offline friendship
- 37 Facebook has increased my social contact, but not my social life
- 38 Facebook causes me lots of drama
- 39 I sometimes feel better about myself when I see the Facebook drama of others
- 40 Facebook rubs in bad situations
- 41 I feel like I can't control my Facebook behaviour
- 42 I torture myself by looking at Facebook pages of people I don't like
- 43 If I didn't use Facebook I would panic about what I was missing
- 44 I fear the separate parts of my life clashing on Facebook
- 45 Facebook has increased my offline self confidence

- 46 Facebook does more good than harm
- 47 I have felt betrayed by someone because of what's happened on Facebook
- 48 Facebook sometimes makes me feel lonely
- 49 On Facebook you never really lose friends
- 50 It's important to be selective with your friend choice if you want to enjoy Facebook
- 51 Facebook really helps my social life
- 52 I feel more confident socialising on Facebook than in real life
- 53 My mood affects how I perceive things on Facebook
- 54 The behaviour of my Facebook friends sometimes angers or frustrates me

11.5.2 SCORING SHEET

Participant Number of Sorter: _____

Date: _____

Sorting Instruction: Thinking of your experience of Facebook, to what extent do you agree/disagree with the statements provided

Scoring Instructions: Once you have completed the Q Sort, please copy each card number onto the grid below.

Least Like How I Think ← _____ → Most Like How I Think

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5

11.5.3 SEMI-STRUCTURED FOLLOW-UP QUESTIONS

1. How would you describe your Facebook Usage? How often do you use Facebook?
2. Why did you choose the three statements at the 'agree' end of the scale?
3. Why did you choose the three statements at the 'disagree' end of the scale?
4. Were there any other statements you wanted to mention?
5. Tell me how you feel about Facebook in general, using the statements to help you if you wish.
6. Do you think others feel the same way about Facebook as you do?
7. Have you had any particularly good or bad experiences with Facebook?
8. How would you feel if Facebook closed?

11.5.4 FACTOR LOADINGS FOR INDIVIDUAL PARTICIPANTS

Table 1: Factor loadings for individual participants

Participant ID	Factor 1	Factor 2	Factor 3	Factor 4
1	0.0027	-0.0233	-0.0725	0.7568*
2	0.0277	0.2820	0.0130	0.6777*
3	0.5862*	0.2686	0.0935	0.3663
4	0.5237	0.3464	0.3298	0.2993
5	0.0976	0.5220	0.5190	-0.0908
6	-0.2392	0.0701	0.4962*	0.3375
7	-0.1302	0.5737*	0.3298	0.2429
8	0.6252*	0.5297	0.1179	0.0342
9	0.3754	0.6789*	-0.2587	0.0921
10	0.3908	0.5450	0.1105	0.4781
11	0.6550*	-0.2141	-0.0618	0.0058
12	-0.0009	0.3674*	0.0666	0.0450
13	-0.2792	0.6412*	0.0461	-0.0809
14	0.1053	0.7603*	-0.0815	0.0500
15	0.4300	-0.2168	0.2313	0.5529*
16	0.4811	0.2973	0.4107	-0.0721
17	0.4856	0.6145*	-0.0121	0.3276
18	0.5424*	-0.0242	0.0225	-0.0079
19	0.1876	0.0634	0.5078*	0.3631
20	0.1395	-0.1547	0.8151*	-0.2007

* denotes a pure loading onto the relevant factor (flagged).

11.6 CHAPTER 8

11.6.1 QUESTIONNAIRE

The Facebook Experience: Viewpoints

Below are four statements from four hypothetical Facebook users discussing their opinion of Facebook. Please read each person's viewpoint and rate your level of agreement with each statement.

Person A:

It's just Facebook – I don't pay too much attention to it. It's a fake social environment and doesn't really reflect the real me. I can control my usage, and I don't use it in an unhealthy way. I think it has some good points and some bad points, and my mood at the time probably affects how I feel about it. For instance, it's nice to share what people are up to, but my Facebook friends can sometimes anger and annoy me, and I suppose I sometimes end up comparing myself to others on there. But it hasn't caused any major problems, such as relationship issues. It's increased my level of social contact but hasn't really affected my social life.

Completely
Disagree

Completely
Agree

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Person B:

Facebook can get quite addictive when you're on it, and I often lose lots of time on there. I don't use it in an unhealthy way though and I can control my behaviour. As long as you are selective with your friend choice, Facebook can be a great environment! It has many positives, and I feel it has helped my social life. I like sharing what everyone's up to, and keeping in the social loop. I like to see my friends post about their happiness. Facebook can really cheer me up, and I think it does a lot more good than harm. Facebook has never hurt me and I don't seem to experience some of the negative things that others do, such as jealousy or insecurities, but it is 'just Facebook' after all.

Completely
Disagree

Completely
Agree

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Person C:

I've experienced some negative things on Facebook, and it has hurt me. It can cause a lot of drama! Facebook causes relationship insecurities, and in my case, has contributed towards ruining a relationship or friendship. I sometimes feel socially inadequate when I see my friends have been somewhere without me; yet I still torture myself by looking on there at things I won't like. I just can't help myself! I suppose I would panic about what I was missing if I didn't look. I really value Facebook though – it's a valid social environment that reflects the real me. It sometimes makes me feel popular. Even if you have no offline friends, you can have tons of Facebook friends. Also, I do enjoy some of the drama on there. My social life doesn't depend on it, but I wouldn't want it to disappear.

Completely
Disagree

Completely
Agree

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Person D:

Facebook can have some destructive qualities and part of me wishes it would just disappear. I think more bad than good comes from it. It makes relationships harder; sometimes causing upset or even ruining the relationship altogether. It brings together different parts of my life, and I worry about these clashing on there. Also, I find it ruins offline social situations. You have to be careful about your friend choice. I can lose a lot of time on Facebook, but I don't need it. People wouldn't forget I existed without it!

Completely
Disagree

Completely
Agree

0	1	2	3	4	5	6	7
---	---	---	---	---	---	---	---

Of the four viewpoints you have just read, which ONE person do you most relate to? Please Circle:

A B C D

Of the four viewpoints you have just read, which ONE person do you least relate to? Please Circle:

A B C D

For the person you most relate to, and the person you least relate to, please use the box below to indicate any areas in which you differ with their viewpoint.

Also, if you have any additional comments about your viewpoint, or about any of the viewpoints above please detail them here.

General Facebook Questions

1. For each of the following, please circle your level of agreement:

	Strongly disagree				Strongly agree
Facebook is part of my everyday activity	1	2	3	4	5
I am proud to tell people I'm on Facebook	1	2	3	4	5
Facebook has become part of my daily routine	1	2	3	4	5
I feel out of touch when I haven't logged onto Facebook for a while	1	2	3	4	5
I feel I am part of the Facebook community	1	2	3	4	5
I would be sorry if Facebook shut down	1	2	3	4	5

2. Approximately how many TOTAL Facebook friends do you have? Please Circle.

10 or less 11-50 51-100 101-150 151-200 201-250 251-300 301-400 401 or more

3. In the past week, on average, approximately how much time PER DAY have you spent ACTIVELY using Facebook? (Only include times where you have been looking at or interacting with the website; having Facebook open in the background whilst doing something else does not count). *Write your answer in the box below and circle minutes or hours as appropriate.*

4. Rank each of these activities (1-6) in terms of which you value the most about Facebook:

1 being the one you value the most; 6 being the one you value the least. Use each number only once.

- ☐ Updating people about myself
- ☐ Seeing what friends and others are doing
- ☐ Interacting with friends and others in a casual manner (e.g. commenting/'liking' statuses)
- ☐ Interacting with friends and others fully (e.g. conversations on Facebook chat or messages)
- ☐ Playing games and using applications
- ☐ Organising my social life visually and easily (e.g. set up events, create groups, add photos)

5. Other than face to face, which of the following communication types do you use most often to communicate with the following people: Please tick all of the communication types you use for each person type.

	Facebook Wall	Facebook Chat	Facebook Messages	Texting	Phone call	IM / MSN	Other Social Networking Site	Other	N/A
Partner									
Close family									
Best friend									
Close friends									

6. Other than face to face, which of the following communication types do you prefer to use when communicating with the following people: Please tick only one option for each person type.

	Facebook Wall	Facebook Chat	Facebook Messages	Texting	Phone call	IM / MSN	Other Social Networking Site	Other	N/A
Partner									
Close family									
Best friend									
Close friends									

About you:

7. Are you currently in a romantic relationship? *Please Circle.*

Yes No *(If no, please skip to question 8)*

7a. Is your partner on Facebook also? *Please Circle.*

Yes No

7b. What impact has Facebook had on your romantic relationship? *Please Circle.*

Positive None Negative

8. Which of the following best describes your current living situation? *Please Circle.*

Living away from home Living at home

9. Age: _____

10. Sex: Male Female *(Please Circle)*

Many thanks for your participation! Please return this questionnaire to the researcher. Remember to keep the top information sheet for your reference.

11.7 PUBLISHED ARTICLES BASED ON THE WORK OF THIS THESIS

Orchard, L. J., & Fullwood, C. (2010). Current perspectives on personality and Internet use. *Social Science Computer Review*, 28(2), 155-169.

Orchard, L. J., Fullwood, C., Galbraith, N., & Morris, N. (in press). Individual Differences as Predictors of Social Networking. *Journal of Computer-Mediated Communication*.

Orchard, L. J., Fullwood, C., Morris, N., & Galbraith, N. (in prep). Facebook collective investment: a 'borg' mentality challenges the uses & gratifications interpretation. *Social Psychology*.